



# Governor's Budget State of Montana Fiscal Years 1998-1999

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Governor

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## *Renewable Resource Grant and Loan Program*

January 1997

Project Recommendations & Biennium Status Report

Volume 6

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# **Renewable Resource Grant And Loan Program**

**Project Evaluations and Recommendations  
for the  
1998-99 Biennium**

**and**

**1996-97 Biennium Status Report**

**Prepared by the**

**Montana  
Department of Natural Resources  
and Conservation**

**January 1997**

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## List of Abbreviations

BMP	best management practice
BOD	biological oxygen demand
CARDD	Conservation and Resource Development Division
CD	conservation district
CDBG	Community Development Block Grant Program
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
Co.	county
CST	Coal Severance Tax
DEQ	Montana Department of Environmental Quality (formerly Department of Health and Environmental Sciences)
DFWP	Montana Department of Fish, Wildlife and Parks
DHES	Montana Department of Health and Environmental Sciences (now Department of Environmental Quality)
DNRC	Montana Department of Natural Resources and Conservation
DOC	Montana Department of Commerce
DOT	Montana Department of Transportation
EA	environmental assessment
EPA	U.S. Environmental Protection Agency
FY	Fiscal Year
GIS	Geographic Information System
GWIC	Groundwater Information Center
HUD	Housing and Urban Development
LWQD	Local Water Quality District
MBMG	Montana Bureau of Mines and Geology
MCA	<i>Montana Code Annotated</i>
MCC	Montana Climate Center
MEPA	Montana Environmental Policy Act
MSCA	Montana Salinity Control Association
MSU	Montana State University
MT	Montana
NPS	nonpoint source
NRCS	Natural Resource Conservation Service, U.S. Department of Agriculture
NRIS	Montana Natural Resource Information System
RC&D	Resource Conservation and Development Area
RD	Rural Development Program
RDGP	Reclamation and Development Grants Program
RIT	Resource Indemnity Trust
SID	Special Improvement District
SRF	State Revolving Fund
TSEP	Treasure State Endowment Program
TSS	Total Suspended Solids
USBR	Bureau of Reclamation, U.S. Department of the Interior
USDA	U.S. Department of Agriculture
USFS	Forest Service, U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WRD	Water Resources Division



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## Introduction

The state of Montana's public policy is to promote the conservation, development, and beneficial use of the state's water and other renewable natural resources to secure maximum economic and social prosperity for its citizens. The Department of Natural Resources and Conservation (DNRC) provides the coordination necessary to administer the Renewable Resource Grant and Loan Program, as described in Title 85, *Montana Code Annotated* (MCA).

The Renewable Resource Grant and Loan Program replaces the former Title 85, MCA, Water Development Program and the Title 90, MCA, Renewable Resource Development Program. The current program offers funding for projects that encompass all renewable resources. Governmental entities may apply to the program to obtain funding for community resource-related projects. Resource-related projects that conserve, manage, develop, or protect the beneficial use of a renewable resource are eligible. Past projects have included water and sewer systems, irrigation system rehabilitation, reforestation, urban forestry, erosion control, recreation access, and groundwater assessment projects. Applications are due May 15 of each even numbered year. DNRC staff reviews and ranks proposals from public entities and then presents a list of projects recommended for funding to the legislature during the next regular legislative session. Recommendations for the 1995 legislative session are contained in this report.

DNRC has worked with the Department of Environmental Quality (DEQ) and the Department of Commerce (DOC) to make the application for state grant funding less confusing for Montana communities. All three agencies fund or otherwise invest in projects that involve community infrastructure and/or water resources. The application process has been streamlined and agencies share common application forms for the individual programs. Applications submitted to several programs for the same project are jointly reviewed to ensure the best mix of funds from available sources of state and state-administered federal funding. The joint review of applications also guards against funding a single project twice.

Private entities are also eligible for both grant and loan funding for water-related projects under the Renewable Resource Grant and Loan Program. Montana's constitution prohibits the legislature from appropriating funds directly to private entities. Therefore, selection of projects occurs under a different process that involves review by DNRC staff and final approval by DNRC's director. Loan applications from private entities may be submitted anytime during the biennium. Applications for grants may be submitted only when they are solicited by DNRC. Private grants are only provided for projects that offer the greatest public benefit.



# Chapter 1

## The Renewable Resource Grant and Loan Program

### Background

The Montana Legislature established the former Renewable Resource Development Program in 1975 to promote the development of our renewable resources. Funds generated by the use of depletable mineral resources were pledged toward the development of more sustainable resource-based industries. To do this, the program provided funds for eligible renewable resource development projects. Only governmental entities were eligible to apply for funding, however. Funds were provided for the purchase, lease, planning, design, construction, or rehabilitation of projects that conserved, managed, used, developed, or preserved land, water, fish, wildlife, recreation, and other renewable natural resources.

The former Water Development Program was established by the Montana legislature in 1981 to promote and advance the beneficial use of water, and to allow Montana's citizens full use of the state's water by providing grants and loans for water development projects and activities. Under the Water Development Program, both governmental entities and private persons were eligible to apply for funding.

Allocations of the Resource Indemnity Trust Fund (RIT) interest earnings provided the majority of the revenue deposited into the Water Development State Special Revenue Account and the Renewable Resource Development State Special Revenue Account. Other revenues include excess funds transferred from debt service accounts and fees collected from state water projects. The legislature appropriated funds from these state special revenue accounts for several programs and projects in various state agencies. In the past, only excess revenue beyond that needed to fully fund these state agency programs and projects has been available for funding grants. As more programs were added and more costs in each program were realized, funds available for grants under both the Water Development and Renewable Resource Development programs dwindled from \$3.5 million in 1985 to only \$1.7 million in 1991.

In 1993, House Bill (HB) 608 was passed by the legislature to turn back the decline in available grant funding and to combine the Water Development and Renewable Resource Development programs. Changes in the law provide a minimum of \$2.0 million for Renewable Resource Grant and Loan Program public and private grants each biennium. With this action, the 53rd Legislature re-confirmed Montana's commitment to promote the conservation, management, development, and beneficial use of the state's water and other renewable natural resources. Combining the two programs streamlined program administration but did not change applicant and project eligibility criteria. In HB 608, the legislature reiterated that "in order that the people of Montana may enjoy the benefits of the state's water and other renewable resources, the state must establish this long-term renewable resource grant and loan program providing financial and administrative assistance to private for profit, private non-profit, local government, and state government entities for renewable resource grant and loan projects."

### Purpose

The purpose of the Renewable Resource Grant and Loan Program is to further the state's policies, set forth in §85-1-101 MCA, regarding the conservation, development, and beneficial use of water resources and to invest in renewable natural resource projects that will preserve for the citizens of Montana the economic and other benefits of the state's natural heritage.

## **Project Eligibility**

Water and other renewable resource-related projects are eligible to receive grant and loan funding. Applications must document how the funds spent will enhance the common well-being of Montanans through measurable conservation and the management, better use, development, or protection of a targeted renewable resource.

## **Governmental Entities**

According to statute, grants and loans for state and local government assistance may be made: to implement projects that enhance renewable resources in the state through conservation, development, management, or preservation; to assess the feasibility of or to plan such projects; and to achieve similar purposes approved by the legislature. In addition to those grants and loans approved by the legislature, DNRC may also provide grant funds to governmental entities to resolve water-related emergencies. Statute allows DNRC to request up to 10 percent of the funds available for grants in a biennium to use for emergency grants. Emergency funds may be granted to pay for projects which if delayed until the next regular legislative session would result in substantial damages or legal liability.

Requests for emergency funds are reviewed by DNRC staff. Funding recommendations are presented to DNRC's director. Chapter 5 of this report provides information about the applications for emergency assistance received in 1995 and 1996. Other applications for state and local government assistance are reviewed, and funding recommendations are made to the legislature each regular legislative session. The legislature makes individual appropriations to fund projects and stipulates any conditions for funding. Projects are then administered according to the conditions set by law.

During review of state and local government applications for Renewable Resource Grant and Loan Program funding, reviewers may recommend that grants and/or loans be awarded to a department, agency, board, commission, or other division of state government, or to a city, county, or other political subdivision or local government body of the state. These entities, called "governmental entities," in the past have included: cities, counties, towns, water districts, sewer districts, conservation districts, irrigation districts, joint boards of control, state agencies, universities, and school districts.

Grants and loans are available to governmental entities for the purchase, lease, or construction of projects for the conservation, management, use, development, or preservation of the state's water, land, vegetation, fish, wildlife, recreation, and other renewable resources. In the past, eligible projects have included those that, for example, provided research and demonstration of farming practices that reduced agricultural chemical use, improved forest resources, or allowed for better access to recreation opportunities. Other eligible projects have included feasibility and design studies for such projects, and development plans for the rehabilitation, expansion, or modification of existing projects. Watershed projects that protect and improve water quality (such as erosion control projects), and projects that help plan for the future management and protection of water sources (such as groundwater assessment studies), have been funded.

Eligible, water-related projects include projects to construct or repair "works" for the purpose of irrigation, flood prevention, drainage, or the supply of water for public, domestic, industrial, stock, fire protection, or other beneficial uses. Other eligible, renewable resource projects include those for the protection or benefit of fish and wildlife, development of renewable energy resources, and grazing management, to name a few. Program staff regularly provide information to prospective applicants to determine project eligibility.

Chapters 6 and 7 of this report provide more examples of previous public grant and loan projects funded by the legislature. Applications from governmental entities that are less likely to receive funding include proposals for municipal swimming pools and golf course developments, playground equipment, or development of recreational areas for limited public use.

Loans to governmental entities must be secured with the borrower's bond. Loans will only be made to applicants that are structured to incur debt, have the capacity to incur additional debt, and are willing to enter into a bond purchase agreement with the state.

## **Private Entities**

Applications for water-related projects from any individual, association, partnership, for-profit corporation, or not-for-profit corporation may be considered for funding. These entities, called private entities, are eligible for private grants and loans.

Funding for private grant projects is limited. In 1995, the legislature appropriated \$100,000 for grants to private entities. By law, grant funding for a single project may not exceed 25 percent of the total estimated cost (feasibility studies, research, and/or public information projects are not eligible). Statute provides that grants and loans may be made to private entities for *water-related* projects that conserve, manage, use, develop, or preserve the state's water. Only water-related projects may be funded. They must have quantifiable benefits that will exceed costs. Projects must also provide public benefits in addition to any private benefits. Applicants must hold or be able to acquire all necessary lands other than public lands and interests in the lands and water rights necessary for the construction, operation, and maintenance of the project.

Private grant and loan applications are managed under a process separate from state and local government entities. Montana's constitution prohibits the legislature from appropriating funds to a private entity directly. Therefore, funds appropriated by the legislature are used to issue individual awards to private grantees. Criteria for the award of funds to private entities are specified in the law. Each application is reviewed and, based on statutory criteria, funding recommendations are made to DNRC's director. Final funding approval is made by the director.

Irrigation system improvement projects, such as the conversion from flood irrigation to sprinkler irrigation, are the most common type of projects funded through private loans. Projects to convert to gravity flow irrigation systems are another typical project. Loans have also been provided for the development and improvement of rural water supply systems. Chapter 4 of this report provides more examples of previously funded private loan projects. Private loans must be secured with real property. Projects that are not water-related or that are unable to provide real property to secure a loan have not been funded. Irrigation water users associations have applied for loans in the past but have not qualified for funding because the association had no common property that could be offered as security.

Loans will be made only to private applicants that are credit worthy and that are able and willing to enter into a contract for loan repayment.

## **Funding Limitations**

The law does not impose specific limitations on the amount of grant funding that may be provided by legislative appropriation for renewable resource projects proposed by governmental entities. Loans made from the Renewable Resource Loan Proceeds account for renewable resource projects must not exceed \$200,000. Coal Severance Tax loans, as described in Chapter 3, are limited only by the state's bonding capacity.

There are no legal limits restricting the amount of grant money that can be awarded to fund a state or local government project. Grant recommendations presented to the long range planning subcommittee by DNRC are for limited amounts. These limits are consistent with limits imposed by the legislature in the past and have been imposed to obtain optimal public benefit from the investment of public funds. Guidelines used to develop funding recommendations have been

developed with input from the long range planning subcommittee. Proposed funding levels do not constrain the legislature's ability to appropriate grants and loans in amounts deemed appropriate based on testimony presented in legislative hearings and consistent with current legislative priorities.

Grants to private entities are limited by law to 25 percent of the project cost. Loans to private entities may not exceed the lesser of \$200,000 or 80 percent of the fair market value of the security given for the project.

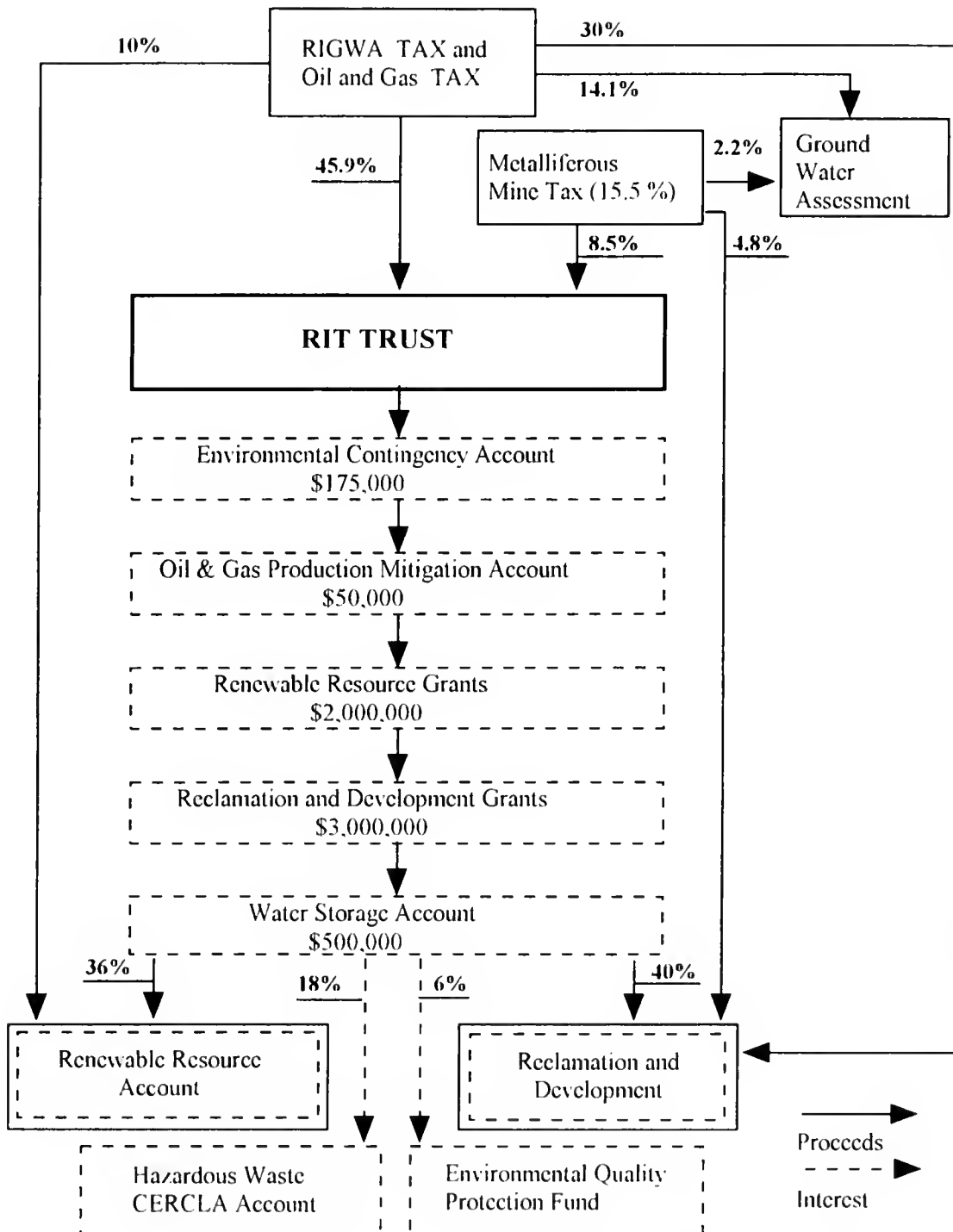
### **Funding Authority**

A minimum of \$2.0 million for grants under the program each biennium comes from interest from the Resource Indemnity Trust (RIT). As shown in Figure 1, a portion of the interest earned on the investment of RIT funds is allocated by the legislature to each of five priorities, including: (1) the environmental contingency account (\$175,000); (2) the oil & gas production damage mitigation account (\$50,000); (3) renewable resource grants (\$2.0 million); (4) reclamation and development grants (\$3.0 million); and (5) the water storage account (\$500,000). After the allocation of funds to the five priorities indicated, the remaining interest earnings are distributed proportionately to four state special revenue accounts: (1) the Renewable Resource Grant and Loan Program account (36 percent); (2) the Reclamation and Development Grants Program account (40 percent); (3) the Hazardous Waste/CERCLA account (18 percent); and (4) the Environmental Quality Protection Fund State Special Revenue account (6 percent).



Figure 1

# ALLOCATION OF RIT PROCEEDS AND INTEREST



## **Program Implementation**

General provisions of Title 85, MCA, dictate that the state, acting through DNRC, coordinates the development and use of the water resources of the state so as to effect full utilization, conservation, and protection of its water resources. In 1993, the Renewable Resource Development Program was combined with the Title 85 Water Development Program, and DNRC's role under Title 85 was extended to provide for DNRC's continuing coordination of the development of the state's renewable resources to preserve for Montanans the economic and other benefits of the state's natural heritage. The Resource Development Bureau of DNRC thus assumed the responsibility of administering the Renewable Resource Grant and Loan Program as stipulated under Title 85, part 6, MCA.

Part 6 of Title 85 specifies DNRC's role in the management of the Renewable Resource Grant and Loan Program. In the management of grants and loans and the sale of bonds for state and local government assistance, §85-1-605, MCA, allows DNRC to make project funding recommendations only. The legislature approves by appropriation the actual awards of those grants and loans to governmental entities that it finds consistent with the policies and purposes of the program. In presenting recommendations to the legislature, DNRC provides information about each project for legislative consideration. All public grant projects are ranked by DNRC to show the legislature the potential value of one project compared to all of the other grant projects requesting funds. Grant projects that do not meet minimum technical standards are not recommended by DNRC for funding. All recommendations made by DNRC may be rejected by the legislature in favor of other considerations that it holds as higher priority. Once the legislature makes an award, DNRC manages the authorized grants and loans according to conditions set out in the legislative appropriations bill.

Acting within the limits of the authority provided by statute, DNRC provides the staffing necessary to enable the legislature to govern state and local government assistance rendered under the Renewable Resource Grant and Loan Program. Each legislative session, members of the long range planning subcommittee review the funding recommendations provided by DNRC. In response, the committee provides DNRC direction for the future.

Statute clearly prescribes DNRC's role in the administration of grants and loans to private entities. §85-1-606-614, MCA, is specific with respect to the parameters for the award of these funds. DNRC is directed to publicize statutes and rules governing these grants and loans and to set application deadlines. Only water-related projects are eligible. Additional eligibility criteria and the criteria and preferences to be used in evaluation are set out in §85-1-609 and 610, MCA.

Based on the direction provided by the legislature and in response to statute, DNRC has compiled guidelines for the administration of the program. This report presents these guidelines for further review by the legislature.

## **Rule Making Authority**

Montana's constitution prohibits DNRC from "exercising the power properly belonging to the legislature" (Article III, section 1, Montana Constitution). Rule making authority specified by §85-1-612, MCA, prescribes the extent of the power delegated from the legislature to DNRC for the administration of the Renewable Resource Grant and Loan Program. DNRC's role in administering the Renewable Resource Grant and Loan Program is limited to a coordinating role. In other words, applications for funding are submitted to DNRC, DNRC then prepares recommendations, and together with the applicants presents proposals to the legislature or DNRC's director. Except in emergencies, the legislature considers applications for state and local government assistance during each regular legislative session and awards funds in light of legislative priorities unconstrained by statute or DNRC's recommendations. DNRC's director reviews emergency requests and staff recommendations to ensure that proposed emergency awards are consistent with statute. Applications submitted by private entities are also reviewed by DNRC's director to ensure that awards are consistent with statute. Title 85, MCA, directs DNRC to adopt rules to: (1) prescribe the application fee and content for

grant and loan applications, (2) describe the ranking criteria used when making funding recommendations to evaluate and prioritize public grant applications, (3) govern the process for awarding grants and loans to private entities according to statutory criteria, (4) provide for the servicing of loans, and (5) describe the terms and conditions for making grants and loans, and the necessary security instruments and agreements.

Limited by its authority to adopt rules, DNRC is not able to expand or limit the mission of the Renewable Resource Grant and Loan Program beyond legislative intent. The authority to limit the amount of public grants or to narrow the range of eligible grants based on DNRC priorities, for example, is not provided.

## **Mission**

DNRC administers the Renewable Resource Grant and Loan Program to respond to the general provisions of Title 85, MCA. Part 1 of Title 85, MCA, states that the public policy of the state is to promote the conservation, development, and beneficial use of the state's water resources to secure the maximum economic and social prosperity for its citizens. According to part 1, the development, utilization, and efficient distribution of water resources are vital to protect existing uses and to assure adequate future water supplies for public recreational purposes and for the conservation of wildlife and aquatic life.

Part 6 of Title 85, MCA, provides grant and loan funding for projects that support part 1 and that develop other renewable natural resources. The law states that the purpose of the Renewable Resource Grant and Loan Program is: (1) to further the state's policies as outlined in Part 1 regarding the conservation, development, and beneficial use of water resources; and (2) to invest in renewable natural resource projects that will preserve for the citizens of Montana the economic and other benefits of the state's natural heritage. According to part 6, the development of renewable resource projects will continue to provide tax and other revenue and will preserve for the citizens the economic and other benefits of the state's natural heritage. To a large extent the state's present and future economy is based either directly or indirectly on the wise use of renewable resources. Therefore, DNRC considers the conservation, development, management, and preservation of renewable resources a high priority.

With respect to the Renewable Resource Grant and Loan Program, DNRC's mission is to promote grant and loan funding for resource development projects proposed by private and governmental entities that will best support the purposes and stipulations of part 1 and part 6 of Title 85, MCA, and to administer those projects selected for funding according to applicable laws and any conditions imposed by the legislature.

## **Goals**

DNRC's goals for administering the Renewable Resource Grant and Loan Program relate to the solicitation of applications; the evaluation of applications to provide the legislature with a basis for the selection of projects that best supports the purposes and stipulations of Title 85, MCA; and the administration of grants and loans to comply with the conditions of the authorization and applicable laws.

DNRC seeks to:

- (1) Inform the public of the benefits provided through the Renewable Resource Grant and Loan Program through direct mail, news articles, press releases, and the legislative process.
- (2) Solicit public comment and suggestions for improvements to the program through the administrative rule making and legislative processes, during the solicitation for grant applications, and review of projects for funding.

- (3) Coordinate with other state and federal agencies to provide information about government funding sources for water and other renewable resource projects, to facilitate a uniform application process, and to award funds without duplication.
- (4) Inform the public and private sectors that grant and loan funding for water and other renewable resource projects is available, that certain applicant eligibility criteria for obtaining funds exist, and that projects that meet the purposes of Title 85, MCA, qualify for funding. To promote the program, DNRC provides specific information:
  - a. about the grant and loan program to state and local government entities that are most likely to sponsor projects eligible for funding so as to obtain a large number of applications varied in applicant and project type. Information is provided through press releases, news articles, brochures mailed directly to potential applicants, and at workshops held in communities across the state.
  - b. to targeted private entities to obtain applications for grant funds that will result in significant public benefit. Information is provided through press releases, news articles, and direct contact.
  - c. to private entities qualified to borrow money. Information is provided through press releases, news articles, and direct contact.
- (5) Gather input and evaluate applications to assess the technical, financial, and economic feasibility and environmental impacts of each project application and to compare grant projects based on the merits of feasibility and the benefits set out by Title 85, MCA, to provide an objective assessment for funding consideration.
- (6) Effectively administer grants and loans to ensure that funds are used for allowable costs and that projects are executed in accordance with any conditions set by the legislature and in compliance with Title 85, MCA, and other applicable laws without undue burden to the recipient.
- (7) Offer loans at the most affordable rates obtainable through the sale of public bonds.
- (8) Adequately secure loans to protect the investment of public funds.
- (9) Advise the legislature concerning DNRC's efforts to effectively administer the program according to statute and legislative intent.

## Staffing

The Renewable Resource Grant and Loan Program lost staff in 1991 and now employs the equivalent of five full-time staff positions to administer active grants to governmental entities in excess of \$4.0 million, including grants that were authorized by the legislature as long ago as 1987. Grant awards in the 1995 legislative session averaged \$74,000; it is likely that 24 projects will receive funding in the 1997 biennium. Outstanding loans to governmental entities total more than \$89 million and include projects under construction and those in repayment status. Terms for these loans are generally 20 years; the current trend is to add 10 to 15 loans each biennium. Private loans totaling over \$7.0 million have been issued; the outstanding balance of these loans is less than \$3.0 million. These five positions manage more than 200 grants and loans totaling more than \$100 million.

In addition to administering existing projects, Renewable Resource Grant and Loan Program staff provide the manpower to promote the applications process and critically review 50 to 60 new proposals each biennium. Administrative staff

works with bond counsel and a team of financial advisors to sell the bonds needed to finance new loans and to refinance existing loans at lower interest rates when the opportunity exists. Staffing and other funding constraints do limit DNRC's abilities to monitor projects on site, provide technical assistance, evaluate project benefits, and provide public information.

## **Chapter 2**

# **Renewable Resource Grants and Loans Under \$200,000 to Public Entities**

## **Application Administration and Project Review Procedures**

DNRC's Resource Development Bureau accepts applications for public grant and loans that are submitted or postmarked by May 15 of each even-numbered year. A \$250 application fee is required with each application. Exceptions are made for organizations that also provide voluntary expert review of DNRC grant applications. Those state agencies and units of the university system or other organizations that contribute to DNRC's extensive grant review process may request and then would receive an application fee waiver.

### **Project Solicitation**

Project applications are solicited broadly because DNRC seeks to maintain the competitive nature of the program. Those that most closely meet statutory priorities rank most highly and receive DNRC's funding recommendation. Projects that do not rank competitively fall below the projected funding line and are less likely to receive legislative approval.

An extensive mailing list is used to promote the program and to solicit applications from those eligible to apply. Those on the list represent both state and local government entities and private concerns. Mailing lists were originally obtained from divisions within DNRC and other state agencies. Lists were combined and duplicate addresses were removed. Included are contacts from the university system, agencies of state government, cities, towns, environmental organizations, water users associations, irrigation districts, water and sewer districts, Native American leaders, conservation districts, and federal agencies. Individuals and organizations are included in each category.

To begin promotion for the 1997 application cycle, press releases were issued to announce the next application deadline to those not on the current mailing list. Press releases were sent to all Montana daily newspapers during February 1996. Press releases provide general program information, a telephone number and address to request more information, application forms, and guidelines.

In addition to direct mail and media announcements, DNRC combines forces with other state agencies to meet locally with potential applicants. Besides the Renewable Resource Grant and Loan Program, information about the federally funded Community Development Block Grant Program, the State Revolving Fund, the Reclamation and Development Grant Program, and the Treasure State Endowment Program is presented at these seminars for a "one-stop shopping" approach to Montana's state and local government financial assistance programs.

1996 saw a substantial increase in grant and loan applications from the previous biennium. In 1996, 750 grant and loan applications were distributed to potential applicants through direct mailing and hand-outs at financial assistance seminars. In the previous cycle, 40 applicants requested 3.5 million in grant funding. Applications for this cycle increased to 52 grant applications requesting \$4.7 million in grant funding. One application was returned to the applicant for failure to meet the most basic application requirements of a technical and financial presentation. Three applicants also submitted applications for loan funding and four applicants submitted applications for combination grant/loan funds. Total loan funds requested were \$1,862,821. This amount represents a threefold increase from the 1995 grant cycle.

The increase in the number of applications may be attributed to a variety of factors. Federal funding has continued to decrease and a growing pool of applicants is chasing an ever decreasing pool of grant funds. The increase in grant

applicants may in part be the result of a more streamlined grant application process. The grant and loan application for the Renewable Resource Grant and Loan Program was trimmed from 60 pages in 1994 to 43 pages for the current cycle. Furthermore, the program now shares common forms with the Treasure State Endowment Program and the Community Development Block Grant Program for six of eight sections of the application.

Information requested in the 1997 cycle application included:

- A proposal abstract describing the project's merits.
- Project data describing the applicant and the proposed funding structure.
- A technical narrative to describe the proposal's purpose; the project history and a description of prior efforts; the specific objectives to be achieved and how the project will achieve the stated objectives; alternatives considered and the reason the proposed alternative was selected; and a detailed project description to explain how the proposed alternative will achieve the objectives stated.
- Technical documentation to support the technical narrative.
- A financial narrative and budget forms describing the funding structure that will be used to ensure adequate sources of funds to complete the project including grants, loans, matching dollars, and in-kind contributions.
- For public facility projects, affordability data to be used to compare the local financial commitment and ability to pay with other applicants for public facility projects.
- Financial documentation showing commitments from other funding agencies.
- A discussion of the public benefits outlined in statute that will be achieved through the proposed project.
- Information about the need for and urgency of the project to overcome health and human safety concerns.
- A checklist to assess the extent of the adverse environmental impacts likely to occur as a result of the project.

DNRC plans to continue working to streamline the application process to increase the number of applications submitted and thus preserve the competitive nature of the program.

## **Application Review**

All applications received by the deadline are evaluated for completeness. Those missing documentation, application fees, or other basic requirements are notified and provided time to submit additional material. After applications are reviewed for completeness, and any additional information needed is obtained from the sponsor, completed applications are given to a team of key reviewers for evaluation. Figure 2 shows the flow of the grant application review and ranking process.

To review applications for the 1997 cycle, DNRC assembled a technical review team of 10 key reviewers. Key reviewers include staff from other divisions within DNRC and contracted private engineering firms. On average, each key reviewer was asked to coordinate the review of five projects. Projects are assigned to reviewers based on the reviewer's area of expertise. Key reviewers are given information about the program, all application material information received by DNRC, standard scoring instructions, and "Guidelines for Reviewing Applications."

DNRC's technical review team evaluates each application to ensure that the proposal is economically feasible, that it is to be located in Montana, and that the project will be at least technically feasible. Economic feasibility is judged to verify that the anticipated benefits directly attributable to a project will exceed all associated costs. During the technical review, additional detailed technical information may be requested if needed.

For each project the potential for adverse environmental impact is evaluated by a member of DNRC's environmental impact study team in compliance with the Montana Environmental Policy Act. Projects that would result in significant adverse impacts would not be recommended for funding by DNRC until an environmental assessment or environmental

impact study has been accomplished. Recommendations are made to minimize impacts and to ensure that appropriate steps are taken to protect the environment.

The Renewable Resource Grant and Loan Program is directed by statute to implement priorities of the State Water Plan. Each project is reviewed by a water planning expert from the Water Resources Division of DNRC to assess the degree to which it will implement a priority of the State Water Plan. Projects that will implement a priority of the State Water Plan are awarded more ranking points and are likely to rank higher than projects that do not implement State Water Plan priorities.

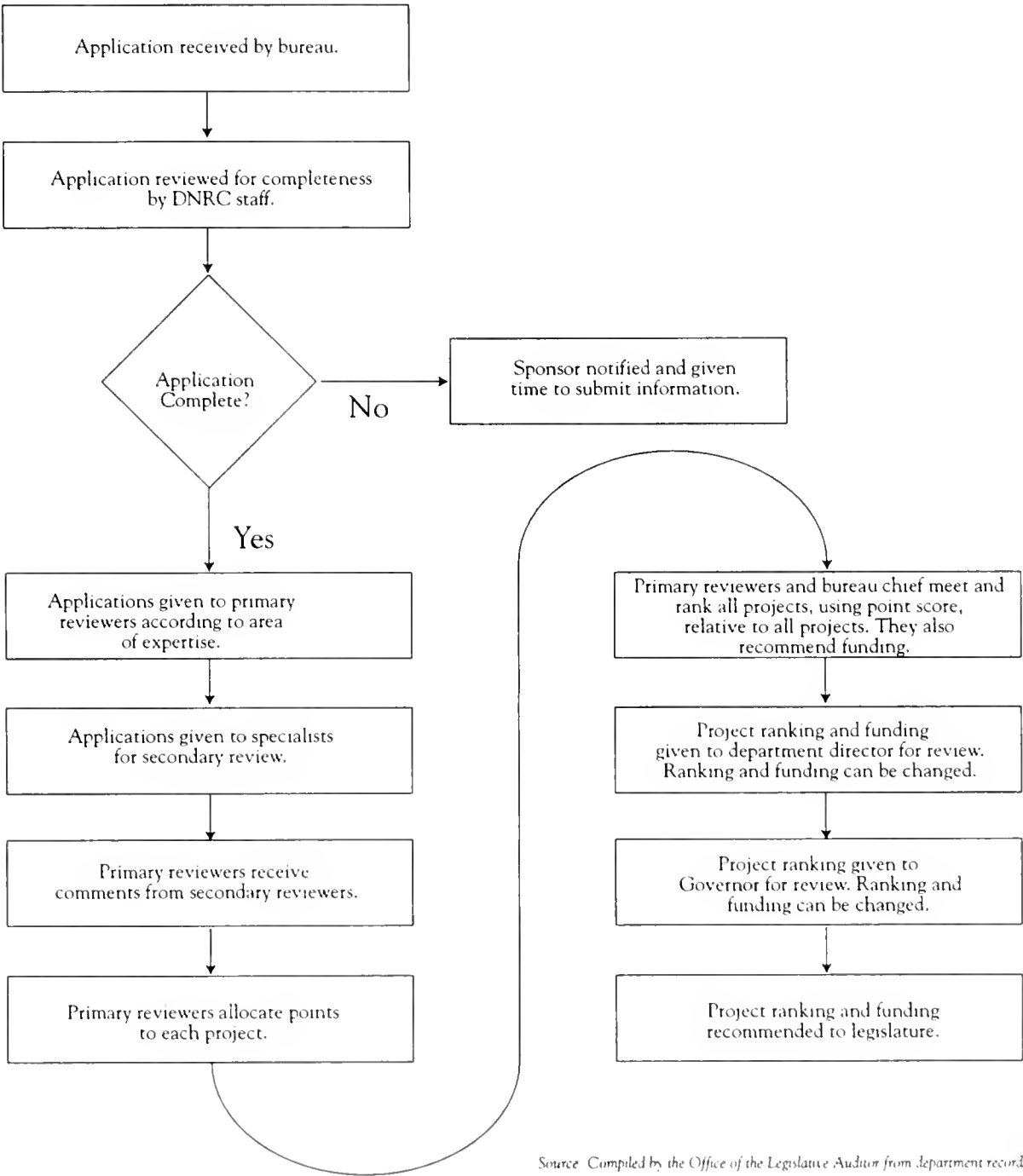
State law requires DNRC to solicit views of interested and affected parties, including local, state, and federal agencies, concerning projects submitted for grant and loan funding. This is accomplished through the review of applications. Each key reviewer requests the voluntary services of one or more other expert reviewers for each project. State agencies, federal agencies, environmental groups, private organizations, and universities provide experts to perform the technical review of applications. Key reviewers use the "Guidelines for Application Review" to provide a consistent basis for expert review of the technical and financial aspects of applications. Press releases were issued in Montana's daily and weekly newspapers to also inform the general public of the projects seeking funding under the Renewable Resource Grant and Loan Program. No comments were received regarding any of the grant or loan applications.

With the results of their own evaluations and comments from agency and outside experts, key reviewers assess and document the merits of each proposal based on standard review criteria outlined in the ranking form.



Figure 2

Flowchart of Grant Application Review and Ranking Process



Source: Compiled by the Office of the Legislative Auditor from department records.

## Grant Project Ranking

To obtain an objective evaluation of all applications, DNRC developed a standard ranking form containing review instructions and guidelines. Each key reviewer completes a ranking form for each application reviewed to document the merits of the proposal and the resulting score.

Each key reviewer assigns a score to reflect project merit under four primary categories:

- (1) **FINANCIAL FEASIBILITY (-200 points).** Key reviewers decide whether funds exist to construct, operate, continue, maintain, or complete a project and whether these are identified. They also determine whether other funding sources to complete the proposed project have been secured, whether documentation of these funds is provided, whether any necessary security required to support a loan requested in conjunction with the grant exists and is sufficient, and whether matching funds are in-kind contributions or another form of soft match.

If this review uncovers any deficiencies in a proposal's financial feasibility, points are deducted. An acceptable application loses no points, a marginal application would lose from 25 to 100 points, and a doubtful application would lose from 101 to 200 points.

- (2) **ADVERSE ENVIRONMENTAL IMPACT (-300 points).** Any adverse impacts in areas such as air quality, water quality, vegetation/wildlife, land use, and visual/aesthetics are identified with the assistance and guidance of DNRC's environmental impact study team. If any adverse effects are likely to result from a project, preparation of an environmental assessment and, possibly, an environmental impact statement would be required to fulfill requirements of the Montana Environmental Policy Act. The cost of these documents becomes a factor in reconsidering the initial cost and benefit assessment.

Adverse environmental impacts are estimated and could result in a proposal's loss of a maximum of 300 points.

- (3) **TECHNICAL MERIT (400 points).** Standard principles are used to evaluate a proposal's technical merit. Review must conclude that a project meets the standards necessary to comply with state law. Applicants also must either hold or indicate their ability to acquire all of the necessary land or water right interests. Proposals that use commonly accepted technology and are not experimental will be more competitive than those that propose to use a more experimental technology to solve a common problem. Proposal budgets and time lines must be reasonable and well-documented. Up to 400 points will be awarded to an application under the technical merit category.

- (4) **PUBLIC BENEFIT (400 points).** Public benefit criteria are based on Montana statutes. Up to 400 points will be awarded, depending on the degree to which these tests apply:

A. **State Water Plan (100 points).** To earn State Water Plan points the project must implement a priority of the State Water Plan.

B. **Reserved Water Rights (50 points).** Reserved water rights points are awarded to projects that initiate the use of water reserved under Montana law or that help resolve tribal reserved water rights.

C. **Resource conservation, management, or protection (175 points).** Points are award for projects that will: significantly contribute toward resource conservation when implemented; invest in replacing nonrenewable resources with renewable resources to provide benefits--economic or otherwise--for the state's citizens and to

preserve its natural heritage; preserve resources such as land, air, water, wildlife, or recreation while developing economic resources; or develop a renewable natural resource to provide future economic benefits to Montana.

D. Citizen benefits or support (75 points). Citizen benefit points are awarded if the project: will be a multi-use project, will be used by the public, is strongly supported by documented citizen support, is co-funded with non-state funding that exceeds the funding requested, or will provide a source of new, permanent jobs. Points may also be awarded for projects that will: provide measurable benefits, be ongoing, affect a large number of people in Montana, or, be significant when compared to benefits that other proposed projects would provide.

For the Renewable Resource Grant and Loan Program, need and urgency are not identified by statute as public benefits. Projects that offer a solution to serious health and human safety problems, in the absence of other compelling benefits, are not recommended for funding. On the other hand projects that receive high scores for the criteria outlined above *and* represent solutions to serious health and human safety problems may receive additional points to elevate the project's standing in the order of funding priority. Need and urgency are evaluated in the following manner:

- (5) **NEED** (100 points). Points for public need will be awarded to proposals only if the subtotal of the previous categories is more than average. Points will be awarded to proposals that have not previously received funding from DNRC; that document no other available public funding, that show compliance with court orders to overcome identified health hazards; or that mitigate existing, adverse environmental conditions. Up to 100 points may be awarded to a proposal under the public need category.
- (6) **URGENCY** (100 points). Urgency points will be awarded only to applicants that qualify for consideration under public need. Up to 100 points may be awarded to proposals that document severe financial need demonstrated by the rates and fees in place for related community systems or services, a high debt-to-bond capacity ratio or other fiscal problems, or a threat to life or property that would be imminent without the project.

After each key reviewer determines the score for assigned projects, all key reviewers, the bureau chief, environmental specialist, and state water planning expert meet to discuss the projects and scores proposed. During this process the key reviewer gives a short presentation about each project reviewed and the score given. After all presentations, scores for each category on the scoring sheet are discussed. The team then decides the scores each project should receive in relation to all projects. Discussion by the team reduces inconsistencies between scores given by individual reviewers. Final team scores are recorded on a ranking spreadsheet used to document the ranking process.

DNRC's ranking system is used to determine the relative merit of every proposal submitted for grant funding. Ranking scores are used as a guide for the staff to select projects that seem to best serve the program's objectives as stipulated by statute, and to summarize information for DNRC's director. Proposal recommendations are presented to the Governor for *grant* funding in the order they are ranked. Ranking scores are not binding. Either DNRC's director or the Governor may make any adjustments to the recommendations prepared by DNRC deemed necessary to reflect their assessment of natural resource and other policy priorities. Based on the Governor's priorities, an appropriations bill is drafted and introduced to the legislature. Actual funding decisions are made by the legislature. Not bound by DNRC's review criteria or the Governor's final ranking, the legislature ultimately will authorize funding for the projects in the order of priority and in the amounts that it judges will best serve the state.

## **Funding Recommendations**

As discussed in this report, DNRC's role is to review and screen grant requests to determine whether the proposed projects are both financially and technically feasible. All feasible grant requests are ranked according to standard criteria to select

those that most efficiently use the state's natural resources in accordance with statutory guidelines. Then, in conjunction with its recommendation for funding priority, DNRC makes its recommendations concerning the amount of funding to be awarded each project (Figure 3).

With the Governor's approval, final funding recommendations are presented to the legislature as part of this report. These recommendations do not impose any limit on the amount of funding the legislature may provide to any governmental entity for a single grant project.

Although grant funding for public projects is not limited by statute, in the past the legislature has limited its grant funding awards to a maximum of \$100,000 per project. This policy reflects the legislature's interest in providing funding for not just a few high-cost grants. Instead, grant limits were set to fund a larger number of grants that would prompt the leveraging of more federal dollars and provide for a greater geographical distribution of grant funds.

## **General Recommendations**

To promote leveraging and to increase the targeted benefits achieved through expenditure of state grant dollars, Renewable Resource Grant and Loan Program grants typically pay only a portion of a project's costs. To help meet a project's total cost, a grant may be paired with a low-interest Renewable Resource Grant and Loan Program loan. By statute, the amount of a single loan financed with revenue from the sale of renewable resource bonds may not exceed \$200,000. These loans may be used to fund either water-related or other renewable resource projects. Discussion here will be limited to loans within this \$200,000 limit. Later in this report, larger loans, available for water-related projects only and funded with the proceeds of the sale of Coal Severance Tax bonds, will be discussed.

Although statute allows a loan up to \$200,000, in practice loans offered in combination with grants have amounted to less than \$200,000. Consistent with past legislative authorizations, DNRC's grant and loan recommendations cumulatively do not exceed \$200,000 for a single project and funds from other sources often are needed. For example, if a \$400,000 well drilling project receives a \$50,000 grant and a \$150,000 loan from DNRC's programs, an additional \$200,000 would be needed from other local, state, or federal sources to meet the project's total cost.

The typical grant recommended by DNRC will be up to \$100,000. The remainder of an applicant's funding request up to \$200,000 will be provided in a loan if the project sponsor is able to repay the loan's principal and interest according to terms specified in a DNRC bond purchase agreement.

DNRC uses these guidelines as staff prepares funding recommendations. Though these guidelines are consistent with the actions taken by the legislature in the past, they do not constrain the legislature from authorizing grant and loan awards in combinations that total more than \$200,000. As emphasized above, statute limits the amount of a single loan financed with revenue from the sale of renewable resource bonds to \$200,000. The amount of grants that may be offered in conjunction with these loans is not limited. The well drilling project in the example above could be funded with a \$200,000 loan and a \$200,000 grant under the Renewable Resource Grant and Loan Program if the legislature authorized funding in those amounts.

After the subcommittee acts on DNRC's recommendations, the appropriations bill is amended and finally adopted through the legislative process. This bill authorizes individual grants and loans, stipulates funding amounts and any restrictions, and specifies the priority order for grants to be funded during the subsequent biennium as revenue is earned. DNRC is limited in its authority to administer grants by the decisions made by the legislature. Grants authorized by the legislature are administered by DNRC in accordance with the appropriations bill and consistent with contingencies adopted during subcommittee hearing.

## Affordability Criteria

DOC's Treasure State Endowment Program for city and county infrastructure improvements offers much larger grants than those typically awarded for similar projects under the Renewable Resource Grant and Loan Program. Program statute directs DOC to select projects with consideration given first to *need and urgency*. Thus, a method was crafted to analyze the debt structure and the ability of applicants to pay for projects with community funds. This analysis is the basis for prioritizing projects and determining the recommendations for grant funding levels. The process is designed solely to evaluate a community's financial condition and does not weigh the value of the project compared to others in terms of its natural resource merit. Under the Treasure State Endowment Program, a \$500,000 limit for grants has been established. Funding is recommended in amounts necessary to ensure that debt load and the fee structure for municipal services is not a larger burden than a community can afford. In addition to the \$500,000 cut, the maximum amount allowed is up to 75 percent of the total project cost.

During the 1993 legislative session, members of the long range planning subcommittee, impressed with financial assessments made by DOC, asked DNRC to inform them of each municipal applicant's relative ability to finance projects for which grant funds were requested. Members of the subcommittee understandably expressed an unwillingness to make Renewable Resource Grant and Loan Program funding a priority for those communities with resources to otherwise pay for a water or sewer project. In a 1994 report, staff from the legislative auditor's office noted, "If DNRC were to change funding policies, municipal entities with greater financial need could be granted additional grant dollars to ease the burden of repaying loans." The report directs DNRC to evaluate the dollar limits for grants and to make recommended changes, if any, to the long range planning subcommittee.

Members of the long range planning subcommittee and the legislative auditor's staff, in view of the applications submitted by municipalities for community water and sewer projects, are inclined to weigh funding priorities and to make funding decisions based on financial need. DNRC finds that the goals of the Renewable Resource Grant and Loan Program, outlined in statute, do not provide for awards based primarily on community financial need. Financial need certainly must remain a factor in providing grant funds. The purpose of the Renewable Resource Grant and Loan Program, however, is to further conservation, development, and beneficial use of water resources and to invest in renewable natural resource projects that will preserve the economic and other benefits of the state's natural heritage.

Past Renewable Resource Grant and Loan Program awards authorized by the legislature have not reflected an inclination to provide assistance based primarily on financial need. Lawmakers have consistently authorized a large number of smaller, "incentive" grants to promote superior natural resource development decisions. There are several reasons that financial need has not been the factor used by the legislature in making grant awards under the program. The amount of money set aside for grants for the program is not adequate to meet the demand for funds to pay for resource-related projects in Montana. Incentive awards were offered to provide the match needed to obtain, in some cases, millions of dollars in matching funds. For example, under the USBR's Rehabilitation and Betterment program for irrigation systems improvement, a \$100,000 grant from the Renewable Resource Grant and Loan Program was adequate to secure \$1.0 million in matching funds. This type of project was ideal because in addition to securing millions of federal dollars, irrigation improvements offer significant opportunities for the conservation, development, and beneficial use of water resources. Unfortunately, USBR no longer has funds for these projects. The number of applications for irrigation system improvement projects has declined with the loss of federal dollars.

Because it is not consistent with the goals of the program and priorities expressed by the legislature in statute, DNRC has not recommended awarding grants in higher amounts to respond to the need for improved water and sewer systems in Montana's communities. DNRC recognizes the inclination to respond to the demand for improvements in decaying community infrastructure facilities. However, based on the goals of the program, these projects do not merit the greatest

consideration.

The number of community infrastructure project applications submitted under the Renewable Resource Grant and Loan Program has increased in response to pressure created by the federal Clean Water Act. Communities in Montana, faced with meeting higher standards when no other source of state funds was available, turned to the Renewable Resource Grant and Loan Program for funds to pay for new or improved community drinking water and waste processing systems. With the decline in other applications due to cuts in federal dollars and with the pressure to meet clean water standards, the number of community water and sewer applications has grown to represent about 40 percent of the applications submitted to the program each biennium. This number is up from 25 percent in the last cycle. The program's focus has inadvertently shifted to the urgent need for infrastructure improvement when, in fact, municipal projects often provide relatively insignificant resource conservation and management opportunities.

Should the legislature opt to structure grant awards primarily on financial need, considerable effort would be necessary to develop a universal scale on which to compare the financial need for the range of applications submitted for varied project types from governmental entities that differ in financial structure. How would one compare an irrigation district's ability to pay for irrigation improvements with a city's ability to pay for a community sewer system? Or how would the financial need and ability to pay for a groundwater study for long range resource planning in a community of 20,000 compare with the financial need and ability to pay for a drinking water system in a community of 200 households? When weighing funding decisions based on financial need, these are the comparisons that would be essential to good decision making and the development of sound program policy. Some projects, especially those sponsored by the university system or agencies of state government, cannot be weighed with respect to financial need. These projects are submitted to the Renewable Resource Grant and Loan Program based on their resource development value. Although not funded through the general appropriations process, such projects certainly could be funded with other sources of state revenue.

In preparation for the 1997 Legislative Session, DNRC contracted with a consulting firm to evaluate each application for community infrastructure improvement funding. The cost for this information was just a fraction of the cost that would result from a comparable effort to evaluate the financial needs of all applications. To make legitimate decisions based on financial need, this evaluation would be necessary for all grant applicants.

## **Project Management**

After an appropriations bill is enacted to authorize grants and loans, DNRC notifies the various applicants of their funded or not-funded status. Sponsors of funded projects are reminded that work on their projects may not begin prior to entering into a grant or loan agreement with DNRC. DNRC does not reimburse any project costs incurred before the legislative authorization is given or before a formal funding agreement is executed.

## **Project Monitoring**

Procedures for monitoring projects, to ensure the program's intent is met, are driven primarily by a project grant contract agreement between DNRC and the project sponsor. The equivalent of 1.5 full-time staff administer the 40 or more active construction, planning, research, and public information grants.

Site visits are made to all municipal water and sewer projects in the construction phase and to approximately 30 percent of all other projects. Site visits are made to spot check for problems or to respond to a request for assistance from the project sponsor. Budget and staffing constraints preclude DNRC's site involvement at every project.

Grant agreements, as with contract instruments used for DNRC's other state and federal grant programs, require quarterly

progress reports, expenditure reports, and a final report. During a project's contract term, the project sponsor must submit quarterly reports to DNRC. These reports must reflect the percentage of the project completed, the project costs to date, any problems encountered, and the need for any agreement amendment. Projects are closely monitored each quarter when quarterly reports are submitted. Amendments to grant agreement are prepared and issued in response to any problems, needs to change project scope, time line, or budget.

Project sponsors must either pay all project costs, submit a claim and obtain a reimbursement of allowable costs from DNRC, or arrange for an advance of funds. Invoices may be submitted monthly, and all costs must be supported by invoices, receipts, or both. DNRC withholds 10 percent of the grant amount for surety until all contract requirements are met and the grant is closed.

As part of the project monitoring effort, program staff document decisions and conversations that affect on-going projects, make notes to the file, and document important conversations with correspondence. Staff closely monitor projects and require that the project sponsor provide documentation with quarterly reports. Contracts are amended to modify projects to adjust for problems, or needed changes in scope, budget or time lines.

## **Project Evaluation**

Through its on-going monitoring efforts, DNRC evaluates grants funded under the Renewable Resource Grant and Loan Program. This report provides a brief report to the legislature each biennium and has been accepted by the legislature for that purpose. Grant agreements are prepared based on applications submitted to the legislature and contingencies placed thereon as a result of the legislative review process. Projects are considered successful if they complete the scope of work outlined in the grant agreement.

Upon project completion, DNRC requires submission of a final project report to document project history and the quantifiable results of the expenditure of grant dollars. This report summarizes grant expenditures, documents the work accomplished, and compares project objectives as presented to the legislature with the final project results. Evaluation of the project through the final project report enables DNRC to measure how well the projects funded implement the program goals of developing, managing, and conserving Montana's renewable resources.

Further evaluation has been requested from time to time by the legislature to respond to questions concerning the geographical location of projects funded, total amounts, and types of projects. DNRC will continue to respond to the legislature's direction in this matter. In the final project report, DNRC require grantees to compare proposed objectives to actual project accomplishments. DNRC will make such a requirement of future grantees.

**Figure 3**

**Renewable Resource Grant and Loan Program  
Project Recommendations Fiscal Years 1998-1999**

<u>Applicant</u>	<u>Project Name</u>	<u>Recommended Grant</u>	<u>Recommended Loan</u>
1 MT Reserved Water Rights Compact Com.	Chippewa-Cree Water Rights Settlement I	\$100,000	
2 Broadwater County Conservation District	Slim Sam Riparian Area Implementation	47,080	
3 Sheridan County Conservation District	Sheridan County Groundwater Management	95,412	
4 Cascade County Conservation District	Agrimet Irrigation Water Management Project	100,000	
5 East Missoula Sewer District	Wastewater Treatment and Collection System	100,000	
6 MT Natural Resource Information System	Montana Climate Information Center	99,781	
7 Fort Benton, City of	Water Distribution Improvements		\$520,480
8 Cascade, Town of	Wastewater System Improvements	100,000	
9 Greenfields Irrigation District	"J" Lake - Reregulation Reservoir	100,000	
10 Valier, Town of	Wastewater Treatment Facility Upgrade	100,000	
11 Lakeside Water District	Water System Improvements		600,000
12 Beaverhead County Commissioners	Big Hole River Return Flow and Water Budget Study	100,000	
13 MT Bureau of Mines and Geology	Groundwater Protection and Education For Rural Schools	99,959	
14 Lake County Land Services	Evaluation of Level II Treatment for Individual Septic Systems	100,000	
15 Gallatin County Water Quality Prot. Dist.	Groundwater Evaluation and Monitoring Project	100,000	
16 Bloomfield School District #30	GeoSource Heat/Cool System	18,375	
17 Choteau, City of	Rehabilitation of Sewer System	100,000	
18 Yellowstone County	Conservation Resource Inventory, Billings Planning Area	29,250	
19 Glasgow Irrigation District	Vandalia Diversion Dam - Rehabilitation Study	98,221	
20 Roosevelt County Conservation District	Fort Peck Assiniboine & Sioux Off-Reservation Needs Assess.	64,561	
21 Chouteau County (Highwood)	Highwood Infrastructure Improvements	100,000	106,321
22 Pondera County Conservation District	Lake Frances Shoreline Rehabilitation Project	20,000	
23 Neihart, Town of	Water Distribution System	100,000	
24 Ruby Valley Conservation District	Ruby River Water Management and Conservation Project	99,741	
25 MT Dept. of Environmental Quality	Direct Planning Grants to Small, Needy Communities	100,000	
26 Chouteau County and Fergus County	PN Bridge & Campground - Streambank Erosion Control Project	76,450	
27 Missoula, City of	Reserve Street South Sewer Project	100,000	
28 Fort Shaw Irrigation District	Irrigation Efficiency and Water Quality	100,000	



	<u>Applicant</u>	<u>Project Name</u>	<b>Recommended      Recommended</b>	
			<u>Grant</u>	<u>Loan</u>
29	Custer County Conservation District	Demonstration of Livestock Waste on Irrigated Lands	\$97,460	
30	Thompson Falls, City of No. 2	Waterline Replacement	100,000	\$100,000
31	Chinook, City of	Water Treatment Plant Improvements		294,000
32	Park County	Hydrological Reconnaissance of the Paradise Valley	100,000	
33	Twin Bridges, Town of	Water System Improvements	100,000	200,000
34	Lewis and Clark County Water Quality Prot. Dist.	Lower Tennile Resource Assessment	100,000	
35	Hill and Liberty County Conservation Districts	Water Resource Evaluation of the Sage Creek Watershed	100,000	
36	Lewis and Clark County	Flood Mitigation Plan	39,500	
37	Glasgow, City of	Sanitary Sewer Separation Project	100,000	
38	Meagher County Conservation District	Cottonwood Creek Watershed Treatment	60,306	
39	Fort Benton, City of	Irrigation and Community Forestry Rehabilitation Project	100,000	
40	MT DNRC, Fire and Aviation Bureau	Western Montana Fire Hazard Assessment	100,000	
41	Chester, Town of	Water Treatment Plant and Storage System	100,000	
42	Thompson Falls, City of No.1	Water Supply Improvements I	100,000	100,000
43	Ekalaka, Town of	Water System Improvement Project	41,000	
44	Roundup, City of	Wastewater Treatment Facility	100,000	
45	Livingston, City of	Livingston Open Space Conservation Initiative	27,000	
46	Yellowstone County	Alkali Creek Streambank Stabilization	100,000	
47	Fort Peck Rural County Water District	Fort Peck Water System Development	36,000	
48	Yellowstone Conservation District	Watershed Planning - Integrating Geospatial Information	100,000	
<b>Total Recommended Grants</b>			<b>\$3,975,096</b>	
<b>Total Recommended Loans</b>				<b>\$1,920,801</b>
Culbertson, Town of			No Funding	
Eastern Agricultural Research Center			No Funding	
Richland County			No Funding	
Wastewater Collection and Treatment Project			No Funding	
Alternative Irrigation Systems & Alternative Crops			No Funding	
Lone Tree Creek Channel Rehabilitation			No Funding	

# Application Summaries

## Project No. 1

**Applicant Name:** Montana Reserved Water Rights Compact Commission  
**Project Name:** Chippewa Creek Reserved Water Right Settlement Project Implementation

The Montana Reserved Water Rights Compact Commission was established to negotiate compacts with Indian tribes claiming reserved water rights within the state. The commission will present a compact among the state, the Chippewa Cree Tribe of the Rocky Boy's Reservation, and the United States to the 1997 Montana legislature for ratification. This is a major step in settlement of water rights in the Milk River basin. This basin was prioritized for issuance of a decree in the adjudication (85-2-321, MCA).

It is anticipated that related federal legislation will bring more than \$20 million to the tribe for economic and water resource development. As a result of the settlement, federal funding will also be sought for a regional water system for the reservation and surrounding communities facing water supply and quality problems.

The Commission seeks funding for a portion of the state's cost share for settlement. The compact will give the tribe use of 10,020 acre-feet of surface and groundwater on Big Sandy and Beaver creeks, while preventing impact on downstream water users including those on the Milk River, and enhancing recreation in Beaver Creek. To do this with limited water supplies requires the following:

Enlarged storage on the reservation. (100 percent federal funding sought.)

- Cooperative efforts for shared use of stored water by the tribe and downstream water users on Big Sandy Creek, and for maintenance of fisheries on Beaver Creek. (Federal/state cost share of administration sought.)
- Improved coordination between reservoir operation on Beaver Creek and the Milk River for more efficient use of irrigation water and enhanced recreation on Beaver Creek. (Federal/state cost share of administration sought. This grant would be used for purchase of storage water if necessary to facilitate coordination.)
- Improved irrigation diversion structures on Big Sandy and Beaver creeks to allow efficient use of irrigation water and to facilitate enforcement. (Funded by this grant.)

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 50,000	Compact Authorization
<b>Estimated Total Project Cost:</b>	\$ 150,000	
<b>Amount Recommended:</b>	\$ 100,000	Grant

## Project No. 2

**Applicant Name:** Broadwater Conservation District  
**Project Name:** Slim Sam Creek Riparian Implementation Project

The Broadwater Conservation District would like to submit this application for a renewable resource grant to construct 2.75 miles of riparian fence, install two cattle guards, and construct two associated water developments to serve

livestock outside the fenced corridor. Completion of this project will enhance the Slim Sam riparian area while increasing livestock use on adjacent grazing areas.

The South Crow allotment management plan was recently revised by the U.S. Forest Service. Riparian utilization standards were incorporated to restore riparian systems. Currently, livestock meet riparian utilization standards in Slim Sam Creek prior to meeting upland utilization standards. Fencing the riparian corridor will achieve better distribution in these adjacent uplands and provide proportionately more days of grazing.

There are seven permittees who graze approximately 500 cow/calf pairs on the South Crow allotment. These local Crow Creek Valley ranchers make up the Crow Creek Livestock Association, which will directly benefit from grant monies. An increase of grazing days will occur annually along with a sustainable long-term use on public land. The grant would also offset labor costs of fence construction and riding that they would normally be responsible for incurring as part of their allotment costs.

Additionally, proper riparian function will increase water holding capacity, production and diversity of native herbaceous vegetation, and bank stability. Wildlife habitat and aesthetic value will also improve. Erosion and sedimentation will decrease. There are 200 or more downstream users in Crow Creek Valley and the upper Missouri River Valley, including agricultural producers and recreationists, who will also benefit.

The requested grant would cover costs for fence materials, water development material, purchase of cattle guard, and construction labor. Broadwater Conservation District sponsors this project in partnership with the Natural Resources Conservation Service (NRCS), U.S. Forest Service, and Crow Creek Livestock Association.

<b>Amount Requested:</b>	\$ 47,080	Grant
<b>Other Funding Sources:</b>	\$ 2,255	Project Sponsor
	\$ 9,980	USFS
	\$ 450	NRCS
	\$ 3,030	Crow Creek Livestock Association
<b>Estimated Total Project Cost:</b>	\$ 62,795	
<b>Amount Recommended:</b>	\$ 47,080	Grant

### Project No. 3

**Applicant Name:** Sheridan County Conservation District  
**Project Name:** Sheridan County Groundwater Management Program

The purpose of this project is to manage groundwater pumping from a large aquifer system in the eastern portion of Sheridan County. This will be accomplished by: (1) carefully reviewing applications to use groundwater; (2) monitoring aquifer conditions; and (3) estimating how much water can be safely pumped from the aquifers without substantially affecting other water uses.

In December 1994, the Board of Natural Resources and Conservation reserved 15,479 acre-feet of water per year from the aquifers for the Sheridan County Conservation District. The district intends to use the water for irrigation. However, when the district's application for water was before the board, there were concerns that the proposed groundwater pumping could affect wetlands, especially those on the Medicine Lake National Wildlife Refuge. The board, therefore, stipulated that the conservation district can issue authorizations for the use of 5,809 acre-feet of the water. Once this level is

reached, DNRC will hold an administrative hearing to reassess the situation and determine whether the district should develop the remaining 9,670 acre-feet of water.

Since the conservation district received its water reservation, local farmers have expressed much interest in developing the water. In fact, the district already has received permit applications that, in total, approach the 5,809 acre-foot intermediate cap.

The district is working in partnership with state and federal agencies to manage groundwater development, monitor water levels, and model the aquifer. It is the district's hope that, with the information gathered during this process, the partners will be able to come to a joint conclusion regarding how much water beyond the 5,809 acre-foot intermediate cap should be developed for irrigation. The funds requested by the district in this grant application will be used to work toward this end.

<b>Amount Requested:</b>	\$ 95,412	Grant
<b>Other Funding Sources:</b>	\$ 15,582	Other DNRC Grant Funds
	\$ 56,464	MBMG
<b>Estimated Total Project Cost:</b>	\$ 167,728	
<b>Amount Recommended:</b>	\$ 95,412	Grant

#### **Project No. 4**

**Applicant Name:** Cascade County Conservation District  
**Project Name:** AgriMet Irrigation Water Management Project

AgriMet is a real time agricultural/meteorological information system that collects weather data. AgriMet weather stations monitor temperature, relative humidity, solar radiation, wind speed, and precipitation. This data is measured every 15 minutes and stored, then relayed via satellite every four hours to Bureau of Reclamation (USBR) computers in Boise, Idaho, and Billings, Montana. USBR maintains the AgriMet weather stations and correlates the crop water use data used in forecasting evaporation rates for more than 40 crops. This information can be accessed with a personal computer and is also available on the Internet.

Montana's AgriMet outreach program provides in-field data collection and training to irrigators, energy and system audits, intensive soil analysis, crop water staging, nutrient management, and weekly irrigation schedules. Started as a demonstration project in 1993 at Boston, the Montana AgriMet program is trying to expand its benefits and technology to reach more irrigators and to other areas in the state. AgriMet benefits include; reduced energy use, improved crop yields, water savings for improved fisheries, reduced leaching of fertilizers and pesticides into groundwater, reduced fertilizer applications, and improved economic conditions in agricultural communities and the state.

The Bonneville Power Administration (BPA) funded the development of AgriMet in 1983 in the Pacific Northwest. Bonneville believes that the Boston example is the best way to implement an AgriMet program that ensures use of the information and provides quantitative results. BPA is assisting the Montana AgriMet Coalition of Conservation Districts to expand AgriMet regionally. The AgriMet Coalition is developing an extensive public/private partnership to address irrigated agriculture's needs while providing environmental benefits for Montana's citizens.

Agriculture is the main user of AgriMet, but other uses can be applied with the data. Other uses include urban water conservation, drought forecasting, year- round weather data acquisition, stream flow yield forecasts, and solar energy

research.

Amount Requested:	\$ 100,000	Grant
Other Funding Sources:	\$ 6,000	USBR
	\$ 50,300	BPA
	\$ 4,000	Irrigators
Estimated Total Project Cost:	\$ 160,300	
Amount Recommended:	\$ 100,000	Grant

**Project No. 5**

Applicant Name:	East Missoula Sewer District
Project Name:	Wastewater Treatment and Collection System

The project includes the construction of wastewater collection and treatment facilities to serve the estimated 1,750 residents of the East Missoula Sewer District. Collection will be provided by a conventional gravity collection system utilizing two lift stations at low collection points. Treatment will be provided with aerated lagoons, storage, spray irrigation, and limited use of infiltration basins. Currently, wastewater treatment is provided by on-site systems, primarily cesspools and drainage pits. The majority of the individual residential wastewater systems employs outdated technology, which provides minimal treatment prior to discharge to local groundwater. Problems with the existing system relate to high residential and commercial density, marginal existing wastewater treatment, threats to drinking water wells, and potential contamination of the Clark Fork River, a water quality limited stream.

The proposed project will eliminate all problems associated with the existing individual systems and will protect water quality in the Hellgate Valley aquifer and the Missoula Valley aquifer. These two aquifers, which are hydraulically connected, provide drinking water for Missoula valley residents and also serve to recharge the Clark Fork River. The proposed East Missoula Sewer District treatment system includes processes that dispose of treated wastewater in a beneficial manner on agricultural crops. The system will re-use nutrients in the wastewater that otherwise could pollute surface waters. Irrigating with wastewater will also replace and conserve other sources of irrigation water.

Amount Requested:	\$ 100,000	Grant
Other Funding Sources:	\$ 500,000	TSEP Grant
	\$ 400,000	CDBG Grant
	\$1,000,000	RD Grant
	\$1,000,000	RD Loan
	\$1,500,000	SRF Loan
	\$ 100,000	Water Quality District
Estimated Total Project Cost:	\$4,600,000	
Amount Recommended:	\$ 100,000	Grant

## **Project No. 6**

**Applicant Name:** MT Natural Resource Information System (NRIS)  
**Project Name:** MT Climate Information Center

On October 1, 1995, the Montana Climate Center (MCC) on Montana State University (MSU) campus closed. MCC carried out important functions on behalf of the state including: 1) responding to information requests; 2) formatting and archiving data; 3) collecting daily weather data; 4) summarizing climate information for use in land and water management projects; and 5) conducting climate research. MCC provided critical support for the state's drought monitoring effort by calculating the Palmer Drought Severity Index. Efforts to revitalize MCC were initiated by NRIS and others, but no funding was available to revive the program. Closure of MCC is a serious set-back for many programs that depend on climate information, and for new efforts seeking to expand the use of climate information to help citizens and government respond to, and in some cases take advantage of, Montana's diverse climate and variable weather conditions. The goal of this project is to establish a climate information center as part of the NRIS program to supply and expand on services provided by the former MCC. NRIS would not conduct research. NRIS is requesting startup funding to help defray the expense of establishing the climate information center. During the startup period, NRIS would identify and secure funding to maintain the center. NRIS would work with the Western Regional Climate Center in Reno, Nevada, and others, to maintain data summaries and tools to support applications used in agriculture, recreation, water- and land-use management, engineering projects, mining, and, significantly, in almost every environmental impact assessment undertaken. New geographic information system (GIS) maps and graphs would be developed to make the climate information easier to understand. All data products would be available through NRIS, including access via the Internet.

<b>Amount Requested:</b>	\$ 99,781	Grant
<b>Other Funding Sources:</b>	\$ 48,479	Project Sponsor
<b>Estimated Total Project Cost:</b>	\$ 148,260	
<b>Amount Recommended:</b>	\$ 99,781	Grant

## **Project No. 7**

**Applicant Name:** City of Fort Benton **Loan Only**  
**Project Name:** Fort Benton Water Distribution Improvements

The City of Fort Benton completed a master plan for its water system in 1990. The plan identified several distribution lines and related facilities that needed replacement. According to Peccia & Associates, the city's engineer, the recommended improvements would increase the efficiency of the storage system, decrease pump head loss, and increase pump output. The improvements would also improve the fire flow protection to the areas in downtown, and the elementary school and hospital. The city completed a portion of the most critical improvements in 1992, and the proposed project consists of the other improvements included in phase I of the plan. In 1995, the engineer updated the plan and revised the cost estimates.

While planning the proposed project, the city decided to address the question of installing water meters throughout the community. Fort Benton currently has 80 residential users on meters. The remaining 546 residential users are on a flat rate based on the type of plumbing fixtures within the home. Installing meters will be complicated by that fact that many homes have at least one boulevard tap, and others have multiple service lines. The need to install meters, however, is made clear by the high level of water usage. Since 1988, the city has pumped a daily average of 547,647 gallons. With 727 total users, this relates to 700 gal/day/user or 20,776 gal/month. To develop a prudent approach to this problem, Fort

Benton hired Neil Consultants earlier this year to prepare a preliminary engineering plan for the meter installation portion of the proposed project.

These figures convinced the city to proceed with meter installation. Due to the complexity of this work, however, the city will install meters over a two- year period. This approach will give the city an opportunity to educate the community and evaluate each individual property for the scope of work. Once residents are aware of the amount of their water consumption and are educated on water conservation, average water consumption will be reduced. The decrease in consumption should also decrease the operational cost of the water plant through reduction in chemicals, energy savings, and pump replacement.

Amount Requested:	\$ 520,480	Loan
Other Funding Sources:	\$ 480,244	TSEP Grant
	\$ 19,943	Project Sponsor
Estimated Total Project Cost:	\$1,020,667	
Amount Recommended:	\$ 520,480	Loan 2% Below/1st 5 Years

**Project No. 8**

Applicant Name:	Town of Cascade
Project Name:	Wastewater System Improvements

The proposed project consists of improvements to the town's wastewater collection and treatment systems. These improvements are necessary to address deficiencies present in the system that may lead to public safety and health problems.

The town is currently under a mandate from EPA to correct deficiencies with the existing wastewater treatment facility. The facility consists of two lagoons, located on an island in the Missouri River northeast of town, which leak so badly that they currently do not hold water. As a result, little treatment is achieved prior to the effluent migrating into the groundwater and ultimately the river. The town proposes to relocate the facility to a site northwest of town. The new facility will consist of facultative lagoons and spray irrigation for disposal.

A portion of the town's storm sewer system drains directly into the sanitary sewer collection system. During storm events, the collection system does not have the capacity to handle the peak flows resulting from storm run-off. The system is designed to overflow sewage and storm water directly into the river prior to reaching the lagoons. Separating the two systems will enable the new treatment facility to be smaller, reduce long-term operation and maintenance costs, and eliminate pollution of the river with untreated sewage. New storm drain lines and inlets will be installed in the western portion of town to replace inlets that drain directly into the sanitary sewer.

An antiquated lift station will be replaced on Russell Street. This is preventative measure. The town feels that it should be replaced before it fails, resulting in an emergency situation.

Finally, a sewer jetter will be purchased. This equipment will enable the town to clean lines on a more routine basis at less cost and will reduce the potential for sewer backup and associated health threats.

Amount Requested:	\$ 100,000	Grant
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<b>Other Funding Sources:</b>	\$ 400,000	CDBG Grant
	\$ 500,000	TSEP Grant
	\$1,330,000	SRF Loan
	\$ 6,500	Local Funding

<b>Estimated Total Project Cost:</b>	\$2,336,500
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<b>Amount Recommended:</b>	\$ 100,000	Grant
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### **Project No. 9**

<b>Applicant Name:</b>	Greenfields Irrigation District
<b>Project Name:</b>	"J" Lake - Reregulation Reservoir

Greenfields Irrigation District is proposing to construct a reregulation reservoir that will conserve water and physically reduce the volume of wasteway flows entering into the eroding Muddy Creek, a tributary to the Sun River near Vaughn, Montana. Muddy Creek has been listed among the top five state water quality problem areas for the last 17 years due to high sediment loads.

District wasteway flows increase the flow in Muddy Creek above that which naturally occurs. The proposed reservoir will regulate wasteway flows entering "J" wasteway, which is the largest single contributor of flow to Muddy Creek other than Muddy Creek itself. Increased flow has contributed to the severe erosion along Muddy Creek leading to water quality problems. An estimated 200,000 tons of sediment annually enter the Sun and Missouri river drainage from Muddy Creek. The reregulation reservoir will enable the district to reuse an estimated 8,000 acre-feet of water annually and reduce the sediment load of Muddy Creek by 15,000 to 20,000 tons per year.

Resulting public benefit is high. Streambank erosion has caused considerable loss of land along Muddy Creek. The lower Sun and Missouri rivers have experienced the negative impact of sediment deposition. Considerable public support exists for this project. A very active Muddy Creek coalition is determined to remedy the problem and numerous remediation project and proposals are in progress. This project is supported by the district; Teton and Cascade County conservation districts; NRCS; USBR; U.S. Fish and Wildlife Service; Department of Fish, Wildlife and Parks; Ducks Unlimited; and the Sun River coordinator. It is absolutely essential that remedial action be taken to restore the environmental integrity of Muddy Creek and the lower Sun River. This proposal represents one of the single most effective means of reducing the volume of flow entering Muddy Creek.

<b>Amount Requested:</b>	\$ 100,000	Grant
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<b>Other Funding Sources:</b>	\$ 594,653	Project Sponsor
	\$ 699,649	USBR
	\$ 3,000	NRCS
	\$ 1,000	Teton County Conservation District
	\$ 1,000	Cascade County Conservation District

<b>Estimated Total Project Cost:</b>	\$1,399,302
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<b>Amount Recommended:</b>	\$ 100,000	Grant
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### **Project No. 10**

**Applicant Name:** Town of Valier  
**Project Name:** Valier Wastewater Treatment Facility Upgrade

The Valier wastewater treatment facility, a single-cell lagoon, has two distinct and serious problems. First, accumulation of sludge over the years has significantly decreased the storage capacity of the lagoon, reducing the detention time of the lagoon to 51 days (compared to the Water Quality Bureau requirement of 180 days). As a result, the effluent discharged by the lagoon is improperly treated; biological oxygen demand (BOD) levels are two times higher than state standards and total suspended solids (TSS) levels are 25 percent higher than permitted. The second problem is that porous soils in the bed of the lagoon allow wastewater to percolate, or exfiltrate, at a rate of 74 million gallons per year, which is 42 times the rate allowed under state standards. If allowed to continue, this excessive rate of exfiltration will likely cause contamination of soils and groundwater.

The proposal to upgrade the facility would solve these problems by removing accumulated sludge, dividing the single lagoon cell into three cells, and adding aeration to provide proper treatment. The lagoon would be lined with an impermeable liner to prevent exfiltration. By adding aeration and increasing lagoon storage capacity, BOD levels will be reduced from 76 mg/L to 30 mg/L and TSS levels will be reduced from 127 mg/L to 100 mg/L, conserving 84 million gallons of water per year by preserving the water quality. By adding an impermeable liner to the lagoon, nearly 74 million gallons of water per year will be conserved by the prevention of exfiltration from the lagoon.

The benefits of the project are that (1) water quality will be preserved through the proper treatment of wastewater, (2) water will be conserved by eliminating the exfiltration of wastewater, and (3) water management will be improved with a more effective and efficient wastewater treatment system.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 200,000	SRF Loan
	\$ 500,000	TSEP Grant
	\$ 400,000	CDBG Grant
<b>Estimated Total Project Cost:</b>	\$1,200,000	
<b>Amount Recommended:</b>	\$ 100,000	

### **Project No. 11**

<b>Applicant Name:</b>	Lakeside County Water District	<b>Loan Only</b>
<b>Project Name:</b>	Lakeside Water System Improvements	

Lakeside County Water District (7-13-22 & 23 MCA) serves 200 users. The first water system consisted of a well and hundreds of feet of 1-inch and 1¼-inch main. In 1978 an improved water system was constructed that included the purchase of a second well, construction of a 200,000 gallon storage tank, and new water mains, 2 to 6 inches in diameter. Major portions of the old system were connected to the new improvements. There were no meters installed on the wells or users. In most cases the users were connected using the old service lines. The system in 1978 supplied domestic water with very limited fire flows or peak flow capabilities.

The district added a third well in 1987. Even with this well in production, summer usage drains the system. Usage is very high because the user charge is a flat rate for unlimited water. Sprinkler rules for summer use regulate consumption but

not enough to allow the wells to maintain a full storage tank.

Lakeside is a rapidly growing community on the west shore of Flathead Lake. Growth or new connections to the water system ceased in July, 1995, when the board passed a resolution (moratorium) prohibiting new connections.

In 1995, a major fire destroyed the Lakeside Marina. The fire department responded quickly. Fire flows from the small diameter mains hindered the department's efforts to suppress the fire. The entire structure and contents were destroyed.

The proposed project includes larger mains to increase peak flow and fire flow capacity, a new well to increase supply, a meter for the original well, and meters for all users. After improvements are complete, water rates will be adjusted to a metered billing system. Rates will be set to recover the costs of the system, costs of operation and maintenance, and debt retirement of production. The metered rate will promote conservation. Currently millions of gallons of groundwater are lost or wasted. The improved system will promote wise use of the resource.

Amount Requested:	\$ 600,000	Loan
Other Funding Sources:	\$ 500,000	TSEP Grant
Estimated Total Project Cost:	\$1,100,000	
Amount Recommended:	\$ 600,000	Loan 2% Below/1st 5 Years

**Project No. 12**

Applicant Name:	Beaverhead County Board of Commissioners
Project Name:	Big Hole River Return Flow and Water Budget Study

Ranchers in the Big Hole basin of southwestern Montana have long been aware of the importance of return flows in the management of their water. Similar to a reservoir system, flood irrigation and stock water that infiltrates the ground during the spring and early summer is held in the basin's aquifers. It then flows back to the river system in the late summer and fall.

Because the river supports a blue-ribbon trout fishery and the last remaining fluvial arctic grayling fishery in the lower 48 states, recent water shortages (during 1977, 1988, and 1994) have placed pressure on ranchers to change traditional water management practices without consideration of the possible benefits of return flows. To assess the impact of return flows, an extensive data collection network is needed to quantify both their amount and timing. Through this proposed study, stream and groundwater flow data will be gathered throughout the year to obtain "snap shots" of water availability in the basin.

The Beaverhead County Board of Commissioners will contract with the Montana Bureau of Mines and Geology (MBMG), DNRC Water Resources Division (WRD), the U.S. Geological Survey (USGS), and USBR to complete the proposed work. MBMG will be the lead technical agency, coordinating the efforts of the other parties.

The water budget and return flow information from the study will educate water users (water-rights holders, recreationists, municipalities, etc.) about the role of return flows and will resolve some of the differences that occur due to lack of data. The Big Hole Watershed Committee (a group composed of representatives from the local ranching community, the Beaverhead Conservation District, the Beaverhead County Board of Commissioners, the Butte-Silver Bow Water Utility, the Montana Power Company, the Beaverhead County Planning Board, the Big Hole Tourism Committee, the Skyline Sportsmen, Big Hole River Foundation, Trout Unlimited, and the Nature Conservancy) will utilize the information to make

water-management decisions that enhance both agriculture and fisheries in the basin.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 3,000	Beaverhead County
	\$ 40,300	MBMG
	\$ 45,000	USBR
	\$ 30,000	USGS
	\$ 6,500	DNRC - WRD
<b>Estimated Total Project Cost:</b>	\$ 224,800	
<b>Amount Recommended:</b>	\$ 100,000	

**Project No. 13**

**Applicant Name:** Montana Tech of The University of Montana, Bureau of Mines And Geology  
**Project Name:** Groundwater Protection and Education in Montana Schools

This project provides an innovative approach to protection of groundwater supplies and groundwater education. Primary and secondary students at schools not using municipal water supplies will participate in developing a wellhead protection plan for their schools' wells. The elements needed in developing a wellhead protection plan include defining the wellhead protection area, identifying potential contaminant source areas, managing the wellhead protection area, and developing a contingency plan should the water supply become contaminated. Developing and implementing such a plan will require an interdisciplinary effort incorporating science, computers, math, social studies, and communications. Eight schools are currently participating in a project to develop wellhead protection plans for their school wells.

The initial success of this project and the increased interest in educational opportunities such as this has led to a request for funds so that 12 more schools can develop individual wellhead protection plans for the wells that supply their drinking water. These schools are located in different areas throughout Montana and are representative of the diverse land uses, geologic, and hydrogeologic environments throughout the state.

The 1986 amendments to the Safe Drinking Water Act specified that each state must develop a wellhead protection program. Montana's wellhead protection program was approved by the Environmental Protection Agency in 1994 and is now part of the State Water Plan. Wellhead protection under the statewide program is on a voluntary basis. Schools are classified as non-community public water-supply systems and fall under the statewide wellhead protection program. Currently, state funds are not available to assist community and non-community water systems in developing a wellhead protection plan. The proposed program will provide resource protection as well as an excellent opportunity to enhance education through practical application of skills learned in the classroom and field. The final result of this effort will be individual wellhead protection plans for small, non-community systems that may otherwise not be able to afford to protect such an essential resource.

<b>Amount Requested:</b>	\$ 99,959	Grant
<b>Other Funding Sources:</b>	\$ 8,408	MBMG
	\$ 5,556	DEQ
<b>Estimated Total Project Cost:</b>	\$ 113,923	
<b>Amount Recommended:</b>	\$ 99,959	Grant

### **Project No. 14**

**Applicant Name:** Lake County Land Services  
**Project Name:** Technical Study of Conventional and Advanced Septic Systems

This project will provide state and local regulators, as well as property owners, with information on the performance of individual on-site wastewater treatment and disposal systems. Specifically, the project will evaluate the performance of two such systems utilizing level two treatment and four drain field trench types. Information will be provided through the collection and cataloging of completed research and through field demonstrations.

New on-site systems are permitted and installed daily in Montana. The assessment of the type of system best suited to a particular site is often difficult because of the lack of reliable engineering and system operation data. The information that is available is often incomplete, not easily accessed, or not applicable to Montana's soil conditions. As a result, permit requirements may not reflect reality, and inadequate systems may be installed. In some cases, new technologies that may work well in Montana may not be allowed. This project will provide factual scientific information upon which regulators and property owners can rely to determine the best on-site sewage treatment and disposal system for an individual parcel of land.

Poor management of on-site wastewater disposal today has the potential for major economic impacts in the future. An aquifer degraded by wastewater is not desirable for domestic use and can preclude the continued development of property and/or the continued use of existing property. Clean water is a necessity for the survival and prosperity of Montana in the future.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 5,000	Project Sponsor
<b>Estimated Total Project Cost:</b>	\$ 105,000	
<b>Amount Recommended:</b>	\$ 100,000	Grant

### **Project No. 15**

**Applicant Name:** Gallatin County Health Department; Local Water Quality District  
**Project Name:** Groundwater Evaluation And Monitoring Project

Recent residential and commercial development in and around the Gallatin Valley has raised concerns regarding the sustainability of the quality and quantity of groundwater in the underlying aquifers, which provide the sole source of drinking water to more than 17,000 people. Recognizing the importance of maintaining the high quality of its water resources, Gallatin County recently established a Local Water Quality District (LWQD), which is currently being implemented. To be effective, the LWQD will need readily accessible hydrogeologic information to assist decision makers, and against which to compare future changes in water quality and availability.

LWQDs are relatively new to Montana. This district has been created to help answer questions regarding potential risks to water resources by providing sufficient hydrogeologic information to be used when planning development. The LWQD's hydrologist will interpret hydrogeologic information so it can be used for land-use decisions. However, time and funding will not be available to interpret data concurrently with acquiring new information and assembling existing information in a usable format. The proposed project is designed to "jump-start" the LWQD by providing the district with easily accessible and geographically indexed hydrogeologic data, along with an established groundwater monitoring

network. This project will examine possible impacts of existing older subdivisions. This study will also address the large-scale residential and commercial development currently taking place in specific vulnerable areas where the use of on-site sewage disposal is ever increasing. Results of this project will provide locally derived land-use guidance by providing the acquired information to elected decision makers and the public. This will be an innovative pilot program for Montana. Techniques developed and employed during the project will provide a model for assisting future LWQDs as they become established throughout the state.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 138,000	USGS
	\$ 81,654	Gallatin County LWQD
<b>Estimated Total Project Cost:</b>	\$ 319,654	
<b>Amount Recommended:</b>	\$ 100,000	Grant

**Project No. 16**

**Applicant Name:** Bloomfield School District  
**Project Name:** Geo-source Heat/cool System

The Bloomfield School is located 25 miles from Glendive and serves 27 students with 3 teachers. It is a rural building that is a vital link for community activities. The structure has existed as such since the early 1940s when the acreage upon which it is located was deeded to the district.

At present, the 2,700 square-foot building is heated with a propane fossil fuel system. The furnaces were installed in the basement 15 years ago. At that point in time, Montana Uniform Fire & Building Code (UMC) stated that liquefied petroleum gas-burning appliances should not be installed in basements where heavier-than-air gas might collect (Section 504(f) UMC). The Deputy State Fire Marshall has recently mandated that our system be removed from the basement and replaced with an appropriate system that meets code.

After considering several options, Bloomfield School Board concluded that the geo-source heat/cool system would best fulfill the needs of the building. The system will operate more efficiently than ordinary heating and cooling systems. It is dependable, requires low maintenance, and is safe and clean. There are no flames, no flue, no odors, and no danger of fire or carbon monoxide poisoning. It emits no CO<sub>2</sub>, which is considered a contributor to air pollution. There are no unsightly, noisy outside tanks or units. This system will heat the school in the winter months, cool it in the summer, and provide hot water for various needs. All of these benefits will be provided at a savings of approximately \$1,000.00 per year for the school.

In addition to being an efficient management of our natural resources, it will also provide an environmentally sound heating system. Geo-source systems have been installed in the Bloomfield area and are a proven efficient system. The installation of this system would allow the school to continue operating efficiently in the Bloomfield community.

<b>Amount Requested:</b>	\$ 18,875	Grant
<b>Other Funding Sources:</b>	\$ 500	Project Sponsor
	\$ 2,000	Bloomfield Electrical Cooperative
<b>Estimated Total Project Cost:</b>	\$ 21,375	
<b>Amount Recommended:</b>	\$ 18,375	Grant

### **Project No. 17**

**Applicant Name:** City of Choteau  
**Project Name:** City of Choteau Rehabilitation of Sewer System

The City of Choteau's grant will be used for the first phase of an extensive upgrade to its wastewater facilities. Sewer service is provided by a city-wide collection system that drains southerly to a large, single-cell wastewater stabilization pond. During the summer, after natural biological treatment, effluent is discharged to nearby alfalfa fields for land application. In the winter the effluent is discharged into the Teton River.

Typical of many small rural Montana communities, the wastewater collection and treatment facilities are old and are experiencing operational problems. In particular, there is a severe problem with shallow groundwater infiltrating into the wastewater collection system, which frequently exceeds the collection system's capacity. This results in a severe surcharging of the sewer system. Excess waters mixed with raw sewerage have backed up into basements of the nursing home, businesses, and even bubbled out manhole covers and found its way into the city's storm sewers. Although the treatment facility provides a degree of biological treatment, the excess waters create operational difficulties and make it extremely difficult to meet the increasingly more stringent regulations for discharges.

This phase concentrates primarily on improvements to the city's collection system. The existing system will be rehabilitated by using television inspection to identify pipe joints that need rescaling by grouting. An apparatus is introduced into the system at manholes which is then pulled down the line allowing television inspection of the joints and pipeline conditions. The television inspection should also reveal areas where poor service connections, broken or cracked pipe, or other pipeline deficiencies are allowing groundwater to enter.

These efforts will be coupled with spot excavating and repairing found or known major points of groundwater infiltration into the collection system.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 100,000	TSEP Grant
	\$ 200,000	Local Revenue Bond
<b>Estimated Total Project Cost:</b>	\$ 400,000	
<b>Amount Recommended:</b>	\$ 100,000	Grant

### **Project No. 18**

**Applicant Name:** Yellowstone County  
**Project Name:** Conservation Resource Inventory

Yellowstone County is proposing to conduct an inventory that will help resource planners and managers protect natural and cultural resources. Collectively these resources are called conservation resources. The results of this inventory will be a series of electronically reproducible and upgradeable maps, generated by the Yellowstone County GIS Department and accessible to the public. The inventory will identify the location, extent, and character of: groundwater and surface water resources, floodplains, wetlands, wildlife habitat, prime agricultural soils, geologically hazardous areas, recreation areas, and scenic, historical, archeological, and cultural resources.

The Billings Urban Planning Area is experiencing significant growth and is constantly pressured to provide for more public services while promoting orderly development. Decision makers rely on the Yellowstone County Comprehensive Plan and similar documents for an understanding of public needs and desires. Development often conflicts with planning policies that seek to manage, protect, and preserve natural and cultural resources. These resources are not mapped for the Billings Urban Planning Area. The proposed inventory will help decision makers reduce or eliminate the adverse effects of development on conservation resources.

A natural resource planner will be contracted to collect and synthesize data from existing maps and published literature, aerial photographs, and field mapping. City/county planners will assist with the data collection phase. The data will be entered and digitized into the county GIS, ArcInfo, by a county GIS specialist and analyst. The total cost of the project is \$53,250.00. This Renewable Resource Grant will provide 55 percent of the total project costs. The remaining costs will be covered by in-kind contributions from the Billings City/County Planning Department and the Yellowstone County GIS Department.

Amount Requested:	\$ 29,250	Grant
Other Funding Sources:	\$ 17,000	Project Sponsor
	\$ 7,000	City of Billings
Estimated Total Project Cost:	\$ 53,250	
Amount Recommended:	\$ 29,250	Grant

**Project No. 19**

**Applicant Name:** Glasgow Irrigation District  
**Project Name:** Vandalia Diversion Dam - Rehabilitation Plan Study

This grant application is for an engineering study to repair Vandalia Diversion Dam. Constructed from 1915-1917, Vandalia Diversion Dam diverts water from the Milk River for the Glasgow Irrigation District. After 80 years of operation, the facility is in need of significant repairs, rehabilitation, or replacement. The study will identify structural deterioration, categorize and prioritize repair alternatives, and estimate costs for rehabilitation.

The district includes 106 operational farm units covering more than 18,000 acres. A rural population of approximately 591 people rely on project facilities for irrigation water and numerous others use the reservoir created by the dam for irrigation pumping. The project facilities are the economic backbone of the agricultural community. The reliability of Vandalia Diversion Dam is key to the economic stability of the Glasgow and Nashua communities.

Glasgow Irrigation District has aggressively been working toward modernization, rehabilitation, and repair of the project facilities. The district recently completed a \$2.2 million federal R&B loan project to repair and modernize the main conveyance system. Also, a cost-share grant with DNRC was used to replace 128 of 300 farm delivery structures. These loan and cost-share projects have caused a financial strain on the district. The district is beyond its maximum ability for repayment through the R&B loan program, which has resulted in a reduced annual economic return to irrigators. Although the district may be able to pursue other grants or Pick-Sloan funds for future repairs, no such funding sources are currently available for this study.

The need for analyzing cost-effective repair alternatives is immediate. The structural integrity of the dam is vital to delivery of water. Delays will increase the costs of repairing the dam and could ultimately lead to failure of the structure.

<b>Amount Requested:</b>	\$ 98,221	Grant
<b>Other Funding Sources:</b>	Unknown Project Sponsor In-kind Contribution	
<b>Estimated Total Project Cost:</b>	\$ 98,221	
<b>Amount Recommended:</b>	\$ 98,221	Grant

**Project No. 20**

<b>Applicant Name:</b>	Roosevelt County Conservation District
<b>Project Name:</b>	Fort Peck Assiniboine and Sioux Municipal, Rural, & Industrial Water Project.

Roosevelt County Conservation District is proposing to conduct a needs assessment and feasibility study of planning, design, construction, operation, maintenance, and replacement costs for a regional community, rural, and industrial water project. This system would be interconnected with the Fort Peck Assiniboine and Sioux Rural Water Project, which is proposed for authorization by the United States Congress. This project will provide for the enlargement of the intake, treatment plant, pipelines, pumping stations, and related facilities to deliver water off of the Fort Peck Indian Reservation to surrounding communities, rural residences, and pasture taps for livestock. The authorizing legislation will provide federal funds for 75 percent of the off-reservation planning, design, and construction funding in addition to funding for enlargement of facilities on the reservation. Twenty-five percent of the project funding will come from state and local water user funds.

To implement the construction it is necessary to perform a needs assessment and feasibility study of the Fort Peck Assiniboine and Sioux Municipal and Rural Water Supply System. The off-reservation needs assessment and feasibility analysis would be completed from the project proposed here. The needs assessment will identify the amount of water required and the communities and rural areas to be served by the project in northeastern Montana. Water supply needs for in-house, lawns, and gardens, commercial, livestock, fire, and other purposes will be evaluated keeping in mind water conservation practices and codes. This study will also assess the need for the upgrade of existing water distribution facilities in the communities and rural areas. The feasibility study will determine the construction costs of new pipelines, pumping stations, reservoirs, and related facilities to distribute water throughout the area. Annual operation, maintenance, and debt service costs will also be evaluated for alternative cost-sharing scenarios.

<b>Amount Requested:</b>	\$ 64,561	Grant
<b>Other Funding Sources:</b>	None	
<b>Estimated Total Project Cost:</b>	\$ 64,561	
<b>Amount Recommended:</b>	\$ 64,561	Grant

**Project No. 21**

<b>Applicant Name:</b>	Choutau County
<b>Project Name:</b>	Highwood Water and Wastewater System Improvements

Choutau County has prioritized Highway 228, a gravel road serving Highwood, for major improvements in 1997. An unincorporated community, Highwood is served by a water users association and a sewer improvement district. Both entities need to upgrade their systems; the water distribution lines may be replaced before the highway construction is



completed. At the request of the Highwood Improvement Association, the county amended its engineering contract to include an analysis of the community's water and sewer system.

Highwood's sewer treatment plant is in poor condition and has reached the end of its design life. The plant violates its permit conditions several times each month and is presently achieving only 30 to 60 percent of required treatment levels. The lack of standby power creates potential for backup and overflow. Also, the high operation and maintenance costs of this mechanical treatment process are difficult to fund in a small rural community.

The community's water supply is adequate, but the chlorination system needs improvement in order to provide adequate contact time and reduce contamination potential. During high demand periods, water is pumped directly into the distribution system due to a lack of storage capacity. This creates low pressures resulting in backflow and possible contamination. The distribution system is 50 years old and several mainlines dead-end. These pipes tend to collect sediment, allowing water to become stagnant. Dead-ends also require widespread shut-offs in the event of a break in a main line. Many service lines are lead, also creating a potential health problem. Test results show concentrations of lead above the recommended levels.

The existing water association and sewer district have agreed to merge, creating a unified Highwood Water and Sewer District, which will be responsible for operating and maintaining the improved systems.

<b>Amount Requested:</b>	\$ 80,000	Grant
	\$ 106,321	Loan
<b>Other Funding Sources:</b>	\$ 400,000	CDBG Grant
	\$ 420,000	TSEP Grant
	\$ 40,000	DOT
	\$ 306,792	SRF Loan
	\$ 90,008	District
<b>Estimated Total Project Cost:</b>	\$1,443,121	
<b>Amount Recommended:</b>	\$ 100,000	Grant
	\$ 106,321	Loan
	2% Below/1st 5 Years	

**Project No. 22**

**Applicant Name:** Pondera Conservation District  
**Project Name:** Lake Frances Shoreline Rehabilitation Project

Lake Frances has 6,000 surface acres and stores 105,000 acre- feet of water at full pool. Wave action, due to high winds, has caused severe erosion to the lake shore. Using GIS digitizing, it is estimated that more than 100 acres of surface area have been lost to erosion since 1941. This equates to an average of 16,378 tons of soil lost per year.

This erosion is degrading water quality for recreation, fisheries, and drinking water; destroying the trees and riparian habitat along the Lake Frances campground; and adversely affecting the recreational use of the Lake Frances Campground and the economy of Valier.

Project objectives are to: reduce the impact of wave action and decrease erosion; improve the quality of water by decreasing sedimentation; restore lost riparian habitat and prevent further destruction; and restore the integrity of the campground and improve recreational opportunities.

Of a variety of alternatives developed, the most cost-effective and aesthetic choice is to construct a wooden bulkhead along 1,200 feet of the critically eroding lake shore. Trees, grass, and shrubs conducive to erosion control, wildlife habitat, and recreation will be planted to complement the bulkhead.

<b>Amount Requested:</b>	\$ 20,000	Grant
<b>Other Funding Sources:</b>	\$ 1,500	Project Sponsor
	\$ 2,500	DFWP - Future Fisheries Grant
	\$ 7,500	Motor Boat Access Funding
	\$ 10,000	Fish America Foundation
	\$ 30,110	Private Donations
	\$ 11,500	NRCS
	\$ 10,000	Pondera County Canal & Reservoir Company
<b>Estimated Total Project Cost:</b>	\$ 93,110	
<b>Amount Recommended:</b>	\$ 20,000	Grant

**Project No. 23**

**Applicant Name:** Town of Neihart  
**Project Name:** Water Distribution System Improvements

The Town of Neihart is proposing to install 6,150 feet of water main to replace water main that was installed in 1892. Neihart has been under court order since 1988 to provide safe water to its residents. Neihart has been under an almost continuous boil order since 1980. Currently, groundwater and surface water are being contaminated by the release of chlorine treated water from the present system. This project is needed in conjunction with the current construction of a water treatment plant to bring Neihart into compliance with the court order.

Although a new treatment plant is being constructed, its operation is not feasible or affordable if the water mains are not replaced. Much of the water in the system is lost through leaks and wasting water to prevent freezing. Also, the lack of integrity in the old lines allows, at certain times, the suction of dirt and debris into the distribution system.

In 1892, the water mains were constructed primarily to provide water for electricity generation. Since water constantly moved through the generators, mains were buried only two to four feet in depth. Now to keep the mains from freezing, the town and residents release water from the system. All this adds up to large loss of treated water and contamination of ground and surface water.

Neihart has exhausted or is ineligible for almost no other funding. The town has borrowed to its legal limit of funds to construct the water treatment plant. The town has contracted to replace 1,000 feet of main that froze and broke this past winter. This effort will consume all funds the town can prudently expend on the water system.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 261,028	TSEP Grant
<b>Estimated Total Project Cost:</b>	\$ 361,028	
<b>Amount Recommended:</b>	\$ 100,000	Grant

**Project No. 24**

**Applicant Name:** Ruby Valley Conservation District  
**Project Name:** Ruby River Water Management

The Ruby Valley Conservation District is working with the Ruby River Water Users Association, the Ruby Decreed Water Users, and Ruby River Reservoir Task Force to ensure that the "Water Delivery and Dewatering Prevention Plan" developed for the Ruby River is implemented in a timely manner. This plan encourages the installation of adjustable headgates and measuring devices on all ditches originating at the Ruby River or Clear Creek, a channel of the Ruby River. Having both the adjustable headgates and measuring devices will assist the task force and Ruby Decreed Water Users in defining and maintaining adequate flow levels to satisfy senior water rights for irrigation while sustaining the fishery.

This project, which is classified as both a water management and conservation project, provides for the installation of 19 measuring devices and 8 adjustable headgates. Measuring and controlling the flow to the irrigation ditches will ensure the equitable and legal distribution of water, allow staggering irrigation diversion turnout dates to help alleviate water flow problems during peak demand, and conserve water by preventing seepage and deep percolation water losses in ditches when water is not needed for irrigation.

The 71 decreed water users on the Ruby River are the Montanans most directly benefitting from this project. However, all Montanans who use the Ruby River for agriculture, fishing, or other forms of recreation will benefit from this project through the conservation of water, improved water quality, and maintenance of sufficient instream flows to sustain the fishery.

<b>Amount Requested:</b>	\$ 99,741	Grant
<b>Other Funding Sources:</b>	\$ 25,861	Water Users
	\$ 17,800	NRCS
	\$ 2,175	Headwaters RC&D
<b>Estimated Total Project Cost:</b>	\$ 145,577	
<b>Amount Recommended:</b>	\$ 99,741	

**Project No. 25**

**Applicant Name:** Montana Department of Environmental Quality  
**Project Name:** Waste Water Facility Planning Grants

Montana Department of Environmental Quality (DEQ) has provided planning grants for water pollution control projects to small, needy Montana communities since 1985. These grants partially funded the facility plans that identify community water pollution control needs and options (such as water pollution control construction projects) to protect and enhance water quality. The EPA Federal Construction Grants Advance of Allowance Program annually awarded approximately \$75,000 to DEQ for planning grants. The facility plan costs are shared; 55 percent in grants and 45 percent in local funds.

The 1987 Federal Clean Water Act Amendments sunset the Federal Construction Grants Program and concurrently created the State Revolving Fund (SRF) Loan Program. The U.S. EPA is phasing out the construction grants program

and planning grant funds will no longer be available to DEQ. Montana communities now apply to the SRF program for low-interest loans to construct water pollution control projects, and while facility planning is required for infrastructure projects by virtually all grant and loan programs, SRF loan program rules do not allow funds to be used for facility planning grants.

This DNRC grant will help DEQ provide critical funding for Montana communities needing facility planning assistance, especially those:

with facilities built in the 1970s and 1980s needing improvements, upgrading, and/or expansion (most exceed their 20-year design life);

financing new systems to replace outdated, failing ones; and

experiencing steady population growth, and having inadequately addressed infrastructure needs, i.e., wastewater treatment.

Communities receiving financial assistance in the planning stage may more likely proceed to the construction phase and spur growth in the SRF loan program.

The DEQ biennial needs survey has identified \$80-\$100 million of needed wastewater projects in Montana. More than 75 percent of Montana's communities are small, having fewer than 10,000 people, and need assistance with their water pollution control projects. Planning grant funding assistance is critically necessary for the facility planning/construction grant and loan process for these small, needy Montana communities.

**Amount Requested:** \$ 100,000 Grant

**Other Funding Sources:** None

**Estimated Total Project Cost:** \$ 100,000

**Amount Recommended:** \$ 100,000 Grant

#### **Project No. 26**

**Applicant Name:** Chouteau County And Fergus County

**Project Name:** PN Bridge and Campground - Streambank Erosion Control Project.

This project would use riprap to stabilize approximately 500 linear feet of streambank along the north side of the Missouri River in Chouteau county upstream from the PN bridge (State Highway 236).

The PN Bridge connects Fergus and Chouteau counties about 20 miles northwest of Winifred and 45 miles southeast of Big Sandy on Highway 236. It is the only year- round link for commerce and agriculture to cross the Missouri River for 130 miles. Severe streambank erosion will, in time, threaten the north side bridge approach. Damage is now occurring to an important campground located in an old, established cottonwood grove. Total documented use of the campground during the last five years was 6,854 people.

This proposal has broad public support. Inter-agency cooperation and long-term working relationships have been the mechanism by which the area has improved transportation and recreational values. There is a long history of discourse and participation between two counties, legislators, and two federal and five state agencies.

In 1995, the counties received an award notice of \$50,000 for their 1994 Renewable Resource grant application. (The original requested amount was \$99,615.) After careful review of all potential sources of revenue, the commissioners determined that project completion was not feasible with the limited funds and they had no other sources of revenue. Technical consultants felt that partial completion would involve considerably more expense and time involvement at a later date. Also, with the severe ice damage that occurred this winter, the urgency and need for the project was accelerated. Commissioners decided to push for expanded soft-match commitment from agencies and then to submit for additional grant money, based on more complete design plans and project schedules.

This project represents a classic opportunity for mitigation of loss. By using a well- established technique, non-renewable resources will be protected, renewable resources will be protected, and a structural improvement will be protected.

Amount Requested:	\$ 76,450	Grant
Other Funding Sources:	\$ 4,075	Fergus County
	\$ 4,075	Chouteau County
	\$ 1,775	NRCS
	\$ 3,500	BLM
	\$ 1,500	Volunteer Labor
Estimated Total Project Cost:	\$ 91,375	
Amount Recommended:	\$ 76,450	Grant

**Project No. 27**

**Applicant Name:** City of Missoula  
**Project Name:** Missoula-Reserve Street South Sewer Project

Missoula's Reserve Street South Sewer Project will install a gravity sewer system, including gravity mains and service connections where appropriate, in the project area. This densely populated, primarily low-income area currently has no available sewer service.

The Missoula Valley aquifer has been designated the only sole-source aquifer in the Department of Housing and Urban Development's Region VIII. The Missoula aquifer is the community's only source of drinking water and, according to current research, it is extremely vulnerable to contamination. Protecting valuable water resources is a high priority for the community. Groundwater quality is adversely affected by the use of septic systems in highly developed areas. The proposed project was designed to safeguard the fragile aquifer by sewerage a densely populated area of the city.

In January 1996, the Missoula Valley Water Quality District completed a study of eight high density unsewered areas to evaluate the need for connection of homes and businesses in the areas to sewage treatment facilities. The study prioritizes the areas for connection based on the degree of water quality degradation and potential health risks in each area. This study concluded that "Based on all of the factors considered, the East Reserve Street area represents the most significant threat to water quality and public health. With 26 percent of all unsewered units in this one area, the total loading to

groundwater is higher than any other area.”

The proposed project is the first step to sewerage the above referenced area.

It is vital that we continue our commitment to protect Missoula Valley water resources by making sewer service available and connection a priority in the highly developed areas of Missoula. The proposed project is an important component in the process of protecting Missoula's sole-source aquifer and the quality of the Clark Fork and Bitterroot rivers.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 400,000	CDBG Grant
	\$ 500,000	TSEP Grant
	\$ 100,000	Missoula Valley Water Quality District
	\$1,580,000	SRF Loan
	\$ 614,000	Revenue Bond
<b>Estimated Total Project Cost:</b>	\$3,294,000	
<b>Amount Recommended:</b>	\$ 100,000	Grant

**Project No. 28**

**Applicant Name:** Fort Shaw Irrigation District  
**Project Name:** Irrigation Efficiency and Water Quality

The Fort Shaw Irrigation District is the second largest irrigation project on the Sun River. It distributes water to approximately 10,000 acres on 177 farms between Simms and Fort Shaw. The project was originally completed in 1908 with a small rehabilitation program completed in 1961. The aging headgates and delivery system of 12 miles of canal and 89 miles of laterals are in dire need of repair and lining to reduce the significant water loss and water quality degradation. The impacts can be seen for miles, with losses of 10,000 acre-feet of water per year, which equates to 54 percent of the water removed from the Sun River by the district. These seeps also mean significant loss of productive land from salinity that moves with the water and also water quality degradation for many other uses from the return flows into the Sun River.

This project will install gauges and remote control gates to monitor water use where feasible, start a ditch lining program to reduce the significant seep problem, and evaluate other water conservation options to integrate with the USBR's water conservation program. These improvements will reduce seep and thus improve system efficiency, enabling the district to divert less water, (allowing more water to remain in the Sun River) and improve water quality from reduced chemicals and salinity in the return flows.

The goals of this project are: (1) improve overall irrigation efficiency, (2) reduce loss of land from salinity, and (3) improve water quality and quantity in the Sun River from these improvements.

The objectives to reach this goal are: (1) line canal and laterals, (2) install remote operated gates and gauging stations, (3) conduct extensive water conservation review with Bureau of Reclamation and others.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 290,700	Project Sponsor
	\$ 83,200	USBR
	\$ 24,600	NRCS
	\$ 7,200	Cascade County Conservation District
	\$ 26,000	EPA
<b>Estimated Total Project Cost:</b>	\$ 531,700	
<b>Amount Recommended:</b>	\$ 100,000	Grant

**Project No. 29**

**Applicant Name:** Custer County Conservation District  
**Project Name:** Demonstration of Livestock Waste Utilization on Irrigated Croplands Using Surface Irrigation and Solid Waste Spreading

Grant funds are requested to support implementation, monitoring, and demonstration of four on-farm confined livestock waste utilization and disposal systems. Current state water quality protection statutes mandate containment and disposal of liquid and solid waste from livestock facilities where the potential for impairment of Montana surface or groundwater due to runoff exists.

Practical, beneficial, sustainable methods of waste disposal and utilization have been designed and implemented to supplement crop fertilizer and irrigation water needs in other mid-western and Great Plains states. Such practices are in need of demonstration, evaluation, assessment, and application to promote and enhance livestock operator acceptance in eastern Montana.

This project will consist of demonstrations of the use of livestock liquid waste contained in lagoons and stockpiled waste in conjunction with water spreading, conjunctive use (mixing with existing water supplies), and manure spreading. Measurements will be made of reductions in fertilizer requirements, irrigation water requirements, crop responses, and runoff water quality. This information will be used to substantiate management recommendations presented to livestock producers as part of the educational component of this project.

One demonstration site would be located at the Fort Keogh livestock research facility, where detailed measurements of water quality protection, crop utilization, irrigation efficiency, nutrient movement, and soil and water quality would be made for presentation to livestock producers. Three on-farm demonstration sites would be similarly managed in cooperation with livestock producers within the participating conservation districts. Similar measurements of irrigation water utilization, fertilizer reductions, crop responses, irrigation water reductions, return flow water quality, and runoff prevention would be gathered and presented to interested livestock producers through a series of field tours, organized educational programs, publications, and public meetings.

<b>Amount Requested:</b>	\$ 97,460	Grant
<b>Other Funding Sources:</b>	\$ 2,400	Project Sponsor
	\$ 35,700	Montana State University

<b>Estimated Total Project Cost:</b>	\$ 135,560	
<b>Amount Recommended:</b>	\$ 97,460	Grant

**Project No. 30**

<b>Applicant Name:</b>	City of Thompson Falls
<b>Project Name:</b>	City of Thompson Falls Waterline Replacement II

This project consists of replacing dead-end and undersized mains within the system. The city currently utilizes surface water from Ashley Creek. During periods of high peak demand, the city utilizes two wells.

Areas proposed to be replaced are constructed of cast iron, steel, and asbestos cement lines. Many of these lines have been replaced, but many are still undersized and should be replaced with larger lines. Aside from undersized mains, a concern exists with dead-end lines. Several areas within the system have dead-end lines causing a potential health and safety threat.

The proposed project would benefit approximately 650 services and 1,500 users. This project is necessary to ensure that Montana state statutes are met and to ensure that necessary measures are taken to provide sufficient health and safety care to all those living in the City of Thompson Falls.

<b>Amount Requested:</b>	\$ 100,000	Grant
	\$ 100,000	Loan
<b>Other Funding Sources:</b>	\$ 348,345	TSEP Grant
	\$ 10,250	Project Sponsor
<b>Estimated Total Project Cost:</b>	\$ 558,595	
<b>Amount Recommended:</b>	\$ 100,000	Grant
	\$ 100,000	Loan
		2% Below/1st 5 Years

**Project No. 31**

<b>Applicant Name:</b>	City of Chinook	<b>Loan Only</b>
<b>Project Name:</b>	City of Chinook Water Treatment Plant Improvements	

On December 2, 1995, the city received a letter from DEQ indicating that the clear well disinfection “contact time” at the treatment plant does not meet state requirements. This is a “treatment technique” violation of the Administrative Rules of Montana (ARM) 16.20.208. Quarterly public notices are required until the violation has been corrected. This disinfection contact time violation represents a health threat to the residents of Chinook. The disinfection regulations provide standards for treatment to protect the public from diseases transmitted through the municipal water system. This violation consists of inadequate contact time with the chlorine to complete disinfection of municipal drinking water.

The city has experienced many problems with the raw water intake. The intake is lowered with a well screen attached to the end of the intake pipe housed in a concrete vault next to the radial arm gate. Water enters the intake vault either



through two pipes with slide gates or over the top of a weir that includes a 3-inch bar screen to prevent large debris from entering the vault. Due to the fact that the concrete is lowered and velocity of the water is reduced, sediment buildup in this structure is a significant problem. Ice jams in the Milk River have caused damage to the weir over the past two years. These ice jams have not allowed access to the intake structure and have threatened the water supply for Chinook. During the winter of 1995-96, an ice jam coincided with plugging of the intake screen. Lack of access to the intake prohibited the operator from clearing the blockage. With assistance from the fire department, the city crew installed a temporary pumping system to provide water to the treatment plant.

The existing backwash water ponds cannot be fully dewatered due to the groundwater leaking into the basins. This fact suggests that the existing liners have failed and that there is a potential for groundwater contamination. Relining the basins would protect the aquifer and allow drying in these basins.

The terms of the revenue bond required for a DNRC loan are less expensive than conventional financing. The city's rate payers will benefit from the reduced bond counsel fees and reserve requirements. The city is also applying to the Treasure State Endowment Program for a \$313,000 grant. Without the grant funds, the residents of the city would experience a substantial rate increase. The anticipated residential user rate increase, with a DNRC loan, is \$3.98 per month. The current average monthly system rate for water is \$19.38 and for sewer is \$24.37 for combined rate of \$43.75. According to the TSEP staff, the combined targeted rate for Chinook is \$31.81. The residents of Chinook now pay above the targeted rate. The proposed rate increase will bring their combined rate to \$47.73.

Amount Requested:	\$ 294,000	Loan
Other Funding Sources:	\$ 313,555	TSEP Grant
	\$ 19,555	Sponsor's Water Reserves
Estimated Total Project Cost:	\$ 627,110	
Amount Recommended:	\$ 294,000	Loan 2% Below/1st 5 Years

**Project No. 32**

<b>Applicant Name:</b>	Park County
<b>Project Name:</b>	Hydrogeological Reconnaissance Study of the Paradise Valley

Rapid expansion of residential development into the Paradise Valley has recently prompted local residents to develop a land-use plan to protect and maintain the high quality of the valley's natural resources. However, current knowledge is insufficient to guide planning efforts to protect the aquifers that underlie the valley, provide the sole source of drinking water to all its residents, and contribute flow to the nationally acclaimed Yellowstone River. Therefore, an understanding of groundwater resources was identified as an essential component of the land-use plan that requires further development. The proposed project will address this component by characterizing the groundwater system, thereby providing a sound basis for responsible land-use planning.

The goal of the proposed hydrogeological assessment is to provide unbiased scientific information regarding the basin-fill aquifers that underlie the Paradise Valley, including water quality and the availability of groundwater for future development. The proposed project will describe the general characteristics of the basin-fill aquifers; determine the altitude of the water table and general directions of groundwater flow; identify important recharge and discharge areas;

characterize groundwater quality; and design a long-term monitoring system.

A reconnaissance-level approach will be used to achieve these objectives. Existing information will be compiled from various databases and reports. Wells and springs will be inventoried throughout the study area to document and field-verify well depths, water levels, pH, specific conductance, temperature, nitrate concentrations, and well-construction data. Water levels will be measured monthly in a representative subset of inventoried wells. Water samples will be collected and analyzed to characterize the natural chemical quality of water from each aquifer, and to identify possible areas with existing contamination. In a reconnaissance-level assessment like this, it would be possible to miss small areas of contamination, or any area contaminated with a substance that we don't sample for contamination. Generalized groundwater flow paths will be delineated and major recharge and discharge areas will be identified.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 15,900	Project Sponsor
	\$ 100,000	USGS
<b>Estimated Total Project Cost:</b>	\$ 215,900	
<b>Amount Recommended:</b>	\$ 100,000	Grant

**Project No. 33**

<b>Applicant Name:</b>	Town of Twin Bridges
<b>Project Name:</b>	Water System Improvements

The proposed project consists of improvements to the town of Twin Bridges’ water supply, storage, and distribution system. The following summarizes the proposed improvements.

A 300,000- gallon reservoir will be constructed on a grade east of town. A 12-inch transmission main will connect the reservoir to the existing distribution system. The new reservoir will: (1) increase the available storage from 50,000 to 300,000 gallons, thus meeting the Insurance Service Organization’s requirement for suppressing major fires; and (2) provide increased pressures for fire flows and domestic use throughout town, thus satisfying requirements of the existing population and providing for future growth possibilities.

Distribution system improvements include replacing antiquated, lead joint, cast iron pipes with new mains. Large flows through existing lines are severely retarded due to undersized pipes containing significant tuberculation on the interior. The lines have begun to fail as evidenced by numerous repairs of breaks and leaks the past few years. Installation of new PVC pipe, gate valves, fittings, and fire hydrants will provide the necessary distribution network to residential and commercial areas. Fire flows and low pressures will be increased allowing public health and safety to be improved.

Both wells need minor improvements including pressure release valves, pump control valves, flow meters, and miscellaneous piping.

<b>Amount Requested:</b>	\$ 100,000	Grant
	\$ 200,000	Loan
<b>Other Funding Sources:</b>	\$ 500,000	TSEP Grant

\$ 400,000	CDBG Grant
\$ 68,500	Local Funding

**Estimated Total Project Cost:** \$1,268,500

<b>Amount Recommended:</b>	\$ 100,000	Grant
	\$ 200,000	Loan
		2% Below/1st 5 Years

**Project No. 34**

<b>Applicant Name:</b>	Lewis And Clark County
<b>Project Name:</b>	Tennile Creek Resource Assessment

Tennile Creek watershed is the number one priority of the Lewis and Clark County Water Quality Protection District. Why? Tennile Creek is the major source of drinking water for the City of Helena and recharges the Helena Valley aquifer, the sole source of drinking water for Helena Valley residents. Six public meetings, held at citizen request during the past year, led to serious discussions regarding issues in the Tennile watershed. However, lack of scientific information about the lower reaches of Tennile Creek was identified as a major impediment to finding solutions to the identified problems.

Tennile Creek fluctuates from being severely dewatered in summer months, with subsequent fish kills, to flooding and overtopping its banks during winter and spring. Tennile Creek provides water to local irrigators, recreation to sportsmen in the area, and aesthetic satisfaction to subdivision homeowners who live in close proximity to the stream. Tennile Creek also floods those same irrigated fields and subdivisions during periods of high water. In contrast, as a dewatered stream in the summer, Tennile Creek cannot support a healthy fishery. As a documented recharge source, Tennile Creek "loses" water to the Helena Valley aquifer. As one of the fastest growing localities in the State of Montana, the Tennile Creek watershed faces future withdrawals of groundwater from wells adjacent to the stream and increased withdrawals from the stream in summer months that will exacerbate water quantity and quality problems already existing in Tennile Creek.

Stakeholders in the Helena area have expressed a genuine desire to return Tennile Creek to a healthy stream that will support an active fishery. The proposed scientific characterization of Tennile Creek, with a concurrent public outreach program, will provide the necessary information for the public to make informed decisions regarding watershed planning and management of a major stream that traverses the Helena Valley and provides enjoyment to Helena area citizens and visitors.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 16,010	Lewis and Clark Water Quality Protection District
	\$ 83,000	DEQ
	\$ 9,200	Unknown

**Estimated Total Project Cost:** \$ 208,210

<b>Amount Recommended:</b>	\$ 100,000	Grant
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**Project No. 35**

**Applicant Name:** Hill and Liberty County Conservation Districts  
**Project Name:** Water Resource Evaluation of the Middle Portion of Sage Creek

The water quality in the middle portion of the Sage Creek watershed in northern Hill and Liberty counties has undergone serious degradation. Residents notice discolored water with a thick foam layer during spring run-off and are not able to use it most of the year.

A recent lab analysis revealed high bacterial count, nitrate levels, and total dissolved solids. Other analyses show salinity that exceeds sea water. This investigation will pinpoint which processes (cropping systems, livestock management, and oil field activities) are involved in causing the pollution.

Area landowners/producers united to organize a Sage Creek Watershed Project representing the geographical area. A steering committee has been active in notifying all potential participants and seeking funds for assessment and mitigation. Questionnaires and meetings gave a consensus to address all the nonpoint sources and not just salinity.

Numerous complaints describe the steadily degrading water quality in the shallow glacial outwash deposits serving domestic supplies. Rural water lines serving many households can not handle more demand without additional expensive infrastructure. It is imperative to protect the remaining surface and groundwater sources to safeguard the livestock industry, wildlife, and domestic farm sites dependent on wells.

The proposed project will identify and map existing wells, springs, and streams. Water samples from selected sites will be analyzed for inorganics. A professional hydrogeologist will direct data collection and interpretation to assess the extent of surface water and shallow groundwater contamination. Aquifer sensitivity and vulnerability will be derived from geotechnical information. The information is necessary for watershed planning for cropland, rangeland, riparian areas, and wildlife habitat.

The principal investigator is with the Montana Bureau of Mines and Geology (MBMG). Chemical water analyses will be performed by the analytical division of MBMG. The project duration is 24 months, including two field seasons, commencing fall 1997 or when funds become available.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 3,550	Hill County Conservation District
	\$ 450	Liberty County Conservation District
	\$ 46,833	MBMG
<b>Estimated Total Project Cost:</b>	\$ 150,833	
<b>Amount Recommended:</b>	\$ 100,000	Grant

**PROJECT NO. 36**

**Applicant Name:** Lewis And Clark County  
**Project Name:** Flood Hazard Mitigation Plan

Lewis and Clark County is requesting funding for a Flood Hazard Mitigation Plan for the Helena Valley. The plan will provide an open forum for the identification and discussion of critical flood hazard issues faced by the community and present opportunities for concerted actions to correct any identified problems.

The plan will be a realistic assessment of the characteristics of the surrounding physical environment and the historical relationship of the community to the area as a whole and not be limited to the 100-year floodplain. The proposed plan will address key elements that influence the impacts of, and recovery from, any future flood event. Short-term and long-term opportunities for flood hazard mitigation will be considered. Construction of structures that would alleviate any potential flood hazard, as well as different policy issues, will be examined. Previous analysis of different areas of the Helena Valley will be incorporated into this flood hazard plan.

An important element of any effective planning effort is community participation. It is important that those who are directly impacted have ownership in the process. If not, any solutions identified will not be implemented and measures having a direct impact on their individual pocketbooks will not be completed. The county will use a collaborative, consensus-based process where all stakeholders are invited to identify any potential flood hazards, recommend and evaluate solutions, and develop an implementation strategy. An ongoing community education and outreach process will be key to the success of the plan.

Once the plan is completed, it will be incorporated into the capital improvement plan developed by the county for public works.

<b>Amount Requested:</b>	\$ 39,500	Grant
<b>Other Funding Sources:</b>	\$ 3,000	Lewis and Clark County
<b>Estimated Total Project Cost:</b>	\$ 42,500	
<b>Amount Recommended:</b>	\$ 39,500	Grant

**PROJECT NO. 37**

**Applicant Name:** City of Glasgow  
**Project Name:** Glasgow Storm Sewer Separation Project

The City of Glasgow has been faced with increasing sanitation concerns, property damage claims, and environmental degradation caused by its combined sewage system. In an effort to alleviate these problems, the city is seeking financial assistance for a sanitary sewer separation project through the Community Development Block Grant Program, the Renewable Resource Grant and Loan Program, the Treasure State Endowment Program, and the State Revolving Fund Loan Program.

Glasgow's existing sanitary sewage collection system serves as a storm drainage collection system for 150 acres on the

city's south side. Stormwater, which flows into the sewage collection system, causes raw sewage to chronically back up into the basements of local residences and businesses and to regularly overflow into the Milk River. Excessive stormwater flows structurally attack the sanitary distribution network causing pressure and cracking of the sewer piping. This has resulted in premature repairs being mandated on the collection system. As a result of these and other related problems, the city must separate the combined collection system and is, therefore, pursuing loan and grant assistance to complete the necessary construction improvements.

Clearly, one of Montana's most valuable renewable resources, clean river water, is being degraded by the regular discharge of raw sewage from the combined collection system to the Milk River. Four alternatives have been evaluated for resolving this problem. These included: (1) no action, (2) constructing new sanitary sewers, (3) upgrading the existing combined system, and (4) constructing new storm drains. Solution 4, the city's choice, will prevent raw sewage from overflowing to the river and backing up into area basements.

Community water and sewer bills for the citizens of Glasgow are well above reasonably affordable levels as established by DOC affordability criteria. DNRC grant funding assistance in completing this project is critical to protecting Montana's renewable resources without causing excessive financial burden to its citizens.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 400,000	CDBG
	\$ 500,000	TSEP
	\$1,048,000	SRF Loan
<b>Estimated Total Project Cost:</b>	\$2,048,000	
<b>Amount Recommended:</b>	\$ 100,000	Grant

### **Project No. 38**

**Applicant Name:** Meagher Conservation District  
**Project Name:** Cottonwood Creek Watershed Rehabilitation

Cottonwood Creek, a major tributary to the Musselshell River, has its origin high in the majestic Crazy Mountains. The first travelers to this remote region in Montana would have found a pristine, unspoiled mountain stream, teeming with wildlife and fisheries. Mankind and Mother Nature have not treated this drainage well. A series of events had a dramatic impact on Cottonwood Creek.

High timber prices resulted in heavy logging during the 1970s and again during the early 1990s. Unfortunately, the logging occurred in sensitive areas with the logging operations, road building, and clean-up resulting in heavy erosion.

Mother Nature also dealt a cruel blow with two major forest fires; one during the 1970s and the last major fire during 1994. Floods occurring as a result of opening the forest canopy have created major damage to the downstream reaches. Streambank erosion has impacted fisheries and water quality. Floods have heavily damaged private property, public property (roads, bridges), and major irrigation structures. Only emergency repairs have been made to these areas. Damages from these floods are long term and will impact ranchers, recreationalists, and downstream users for years to come. The U.S. Forest Service completed a major land trade and has begun restoration work on the logged and burned

areas.

The Meagher County Conservation District shares the concerns with the water users and, as a major advocate for conservation in Meagher County, feels responsible to take the lead in the restoration of this once pristine watershed. This grant will provide the restoration work that will again begin to make the area attractive for wildlife, fisheries, recreation, and economically viable timber and water resources.

Amount Requested:	\$ 100,000	Grant
Other Funding Sources:	\$ 107,423	Landowners
	\$ 4,700	Project Sponsor
	\$ 7,404	NRCS
Estimated Total Project Cost:	\$ 219,527	
Amount Recommended:	\$ 60,306	Grant

**Project No. 39**

Applicant Name	City of Fort Benton
Project Name:	Irrigation and Community Forestry Rehabilitation Project

The beneficial land use of Fort Benton's public golf course and other adjacent land management uses are at serious risk due to diseased and dying trees, soil erosion, and an inadequate/deteriorating water irrigation system. Also at risk are the Ag crop spraying services and aerial firefighting depot located at the Chouteau County Airport. These services use the same irrigation system water to prepare aerial spray solutions and fire retardant mixtures.

The proposed project will: (1) repair and expand the existing irrigation system, (2) plant 430 trees of diverse species and age, and (3) construct a three million gallon holding pond. The plan has been reviewed and endorsed by DNRC, Service Forestry Bureau.

The City of Fort Benton owns 82 acres, located 3 miles east of town on the bluffs, which are used by the public golf course, airport authority, Shep Memorial Foundation, Pheasants Forever Habitat, and the Fort Benton Trap Club. Thirty years ago when this area was developed, 725 single species trees were planted which are now dying at a rapid rate. Disease and insect damage are accelerating this decline. In addition, the irrigation system servicing the area is both inadequate and deteriorating. In spite of previous private donations and volunteer efforts, the city has been unable to contain the tree loss damage or provide adequate irrigation system repairs and upgrades.

The resulting public benefit of this project will be significant. The public golf course serves Chouteau, Cascade, Hill, and Liberty counties, with a combined population of 103,000 persons. One hundred fifty farms in this four-county area are presently served by the Chouteau County Airport Ag spraying business. The aerial firefighting depot provides protection for all the 2,444 farms and ranches in the four counties.

Amount Requested:	\$ 100,000	Grant
Other Funding Sources:	\$ 22,300	Signal Point Golf Club

	\$ 15,000	Donations
	\$ 32,500	Local In-kind
<b>Total Project Cost:</b>	\$ 169,480	
<b>Total Amount Recommended:</b>	\$ 100,000	

#### **Project No. 40**

**Applicant Name:** MT Dept. Natural Resources & Conservation Forestry Division  
**Project Name:** Fire Hazard Assessment GIS Project

The Fire and Aviation Management Bureau of DNRC proposes to develop and implement the Western Montana Fire Hazard Assessment Geographic Information System Project in response to the 1996 DNRC Renewable Resource Grant and Loan Program. Increasing development on the west side of Montana's Rocky Mountains over the past decade has created a growing need for wildfire hazard mitigation, protection, and prevention. With the expanding state of the wildland/urban interface, Montana is experiencing an escalating fire hazard problem. Although wildfires are a natural part of the ecosystem in Montana, the potential threat to human life, structures, and natural resources is becoming critical as human populations encroach in greater numbers on areas of abundant and highly flammable wildland fuels. The proposed project will establish a Geographic Information System (GIS) to classify and map fire hazards in the wildland/urban interface areas west of the Montana Rocky Mountain Continental Divide. This system will be used to educate developers, planners, realtors, and landowners of the potential wildfire hazards faced by wildland residential developments and will provide information that will assist in planning and conducting fire prevention activities in these interface areas.

The wildland/urban interface is generally regarded as the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 9,564	Project Sponsor
<b>Estimated Total Project Cost:</b>	\$ 109,564	
<b>Amount Recommended:</b>	\$ 100,000	Grant

#### **Project No. 41**

**Applicant Name:** Town of Chester  
**Project Name:** Town of Chester Water Treatment Plant and Storage System Improvements

This project addresses several needs identified in a study of the water system in Chester, Montana. The community currently does not meter its individual water users, has a low volume of water storage for fire protection, has an area of town which has water system pressures less than 20 psi and has 25-year-old controls of its surface water treatment plant.



The total cost to improve these components is estimated at \$884,000, which is above what the individual users can afford.

The installation of water meters and the updating of the controls and monitoring devices at the water treatment facility are two components that will have a dramatic affect on the amount of water consumed and the quality of the water produced by the town of Chester. The ratio of the minimum day use to the maximum day in Chester is nearly 10 which is 5 times the national average. This indicates that people are not using this resource wisely or efficiently. The use of water meters will help the town recover the costs to produce the water and will cause a reduction on the amount of water used. These two factors will greatly improve the operation of the existing water system. The new water storage reservoir will help increase the operating pressure in the western portion of town.

The installation of the new control/monitor system at the water treatment facility will help the town stay in compliance with the surface water treatment regulations. The upgrading of monitoring and record-keeping equipment will delay the need for an additional employee in the water department, but will still maintain the level of monitoring necessary to ensure a safe water supply. The financial assistance provided by a DNRC grant will help make this project feasible.

Amount Requested:	\$ 100,000	Grant
Other Funding Sources:	\$ 417,000	TSEP Grant
	\$ 100,000	Sponsor's Water Reserves
	\$ 267,000	Local Revenue Bond
Estimated Total Project Cost:	\$ 884,000	
Amount Recommended:	\$ 100,000	Grant

**Project No. 42**

<b>Applicant Name:</b>	City of Thompson Falls
<b>Project Name:</b>	City of Thompson Falls Water Supply Improvements I

The City of Thompson Falls is proposing to construct two additional wells in order to meet the maximum day demand. The maximum day demand is estimated at 975,000 gallons per day, based on current per capita water use and future population of 1,625 people. The city water system provides water from a combination of surface and groundwater sources. Currently the city relies primarily on surface water from Ashley Creek. During periods of peak demand, groundwater from two existing wells are used to supplement Ashley Creek.

The City of Thompson Falls has second water rights on Ashley Creek. This source is subject to primary water rights totaling 725 GPM, which leaves the city a total of 295 GPM. However, this withdrawal is dependent on creek flows and currently does not provide adequate volumes for maximum use during periods of peak demand.

The city utilizes wells during peak demands for water. Well 1 is capable of pumping 650 to 700 GPM, while well 2 is capable of pumping 300 to 350 GPM. Well 2 is relatively shallow and it must be treated as a surface water. DEQ requires wells drawing water from table aquifers within 25 feet of the surface to receive continual disinfection with a 30-minute chlorine contact time prior to reaching the first user. In order to meet these requirements the city would need a separate water main from the distribution system.

The city must be capable of meeting the average daily water demand if the largest source is out of service. In the event the larger well is out of service when Ashley Creek flow is diminished, the average daily demand can not be met.

This proposal would benefit approximately 650 services or 1,500 users and is necessary in order to ensure average daily demand for water users.

<b>Amount Requested:</b>	\$ 100,000	Grant
	\$ 100,000	Loan
<b>Other Funding Sources:</b>	\$ 57,713	TSEP Grant
	\$ 4,250	Project Sponsor
<b>Estimated Total Project Cost:</b>	\$ 261,963	
<b>Amount Recommended:</b>	\$ 100,000	Grant
	\$ 100,000	Loan
		2% Below/1st 5 Years

**Project No. 43**

**Applicant Name:** Town of Ekalaka  
**Project Name:** Ekalaka Water System Improvement Project

The proposed water project would correct several deficiencies with the Ekalaka water system. The primary concern is related to water supply (the wells), but several other improvements are required to bring this water system up to state standards and allow it to provide proper water supply to the residents of Ekalaka.

Ekalaka has one good well (well 3). Four other wells exist on this system, only one of which is being used as a backup well. Problems exist with both quality and quantity. The backup (well 2) is a 50-year-old well and is much more highly mineralized than the other wells. Well 4 is available for use but contains H<sub>2</sub>S gas and therefore is only used in emergencies. Well 5 can produce in excess of 200 gpm, but it delivers sand and therefore has not been used in recent years. Well 6 was drilled in 1994, but it has both quality and quantity problems. The goal of this project is to rehabilitate three of the four backup wells so that they will be a dependable source of high quality water.

Improvements to the telemetry system on the wells will be made and the deteriorated well houses for wells 3 and 4 will be replaced.

There are two 100,000-gallon gravity storage tanks on this water system. One of the these tanks is more than 60 years old, while the other one was constructed in 1994. The two tanks together adequately meet storage needs for fire protection plus normal usage. Rehabilitation of the piping and valving at the base of the old tank is required to allow it to be properly isolated and flushed. There is evidence that this tank leaks. This must be repaired to prevent further damage and to conserve water. Two other improvements are the installation of approximately 30 curb stops and approximately 15 meter pits on certain services. This will help curb the use of unaccounted water and provide important controls on service lines.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 248,000	RD Grant/Loan
	\$ 6,000	Town of Ekalaka

<b>Estimated Total Project Cost:</b>	\$ 354,000	
<b>Amount Recommended:</b>	\$ 41,000	Grant

**Project No. 44**

<b>Applicant Name:</b>	City of Roundup
<b>Project Name:</b>	Roundup Lagoon Improvement

This project consists of the construction of a new aerated wastewater treatment facility and replacement of the collection line extending from 2nd Avenue (along the eastern edge of town) to the new treatment facility. The new facility would be located north and adjacent to the existing lagoon, on property owned by the city. The new treatment facility will eliminate recent hydraulic overloading of the present lagoon, high sodium content of wastewater, seepage of present lagoon bottoms, and sludge accumulation. Action must be taken immediately to avoid damage to the environment and endangering the health and safety of the general public. Collection line reconstruction is included because of its current deteriorated condition. It is also well below state WQB-2 minimum slope standards and will need to be replaced to properly service the new treatment facility. The collection line reconstruction will occur on the existing City easement.

The City of Roundup is presently spray irrigating adjacent farm land from the present lagoons to control hydraulic overloading. That method is considered a short-term solution because the relatively high salinity of city water introduced to this type of soil over a long period of time can cause degradation of the soil structure and render the soil impermeable. The high water levels are causing concern. The possibility of a dike breach is possible during high runoff periods. Such an occurrence would be detrimental to the water quality of the Musselshell River, which runs closely to the lagoon site. Seepage through the existing lagoon floor presents a risk to groundwater levels that are dangerously close to the lagoon floor, perhaps within two feet during months of high groundwater levels. These conditions are a risk to municipal, recreational, and agricultural users near the site and downstream from the present facility, including the towns of Musselshell and Melstone.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 400,000	CDBG Grant
	\$ 500,000	TSEP Grant
	\$1,391,187	Revenue Bonds
<b>Estimated Total Project Cost:</b>	\$2,391,187	
<b>Amount Recommended:</b>	\$ 100,000	Grant

**Project No. 45**

<b>Applicant Name:</b>	City of Livingston
<b>Project Name:</b>	Livingston Open Space Conservation Initiative

The Livingston Open Space Conservation Initiative will help to maintain critical natural resources within the Livingston Planning area. Through conservation projects on properties owned by the city, and voluntary partnership programs with

private landowners, wildlife habitat will be protected, priority open space maintained, and recreational opportunities enhanced.

Livingston residents have consistently voiced their support for conserving the natural values that make this community an outstanding place to live. These include the Yellowstone River and its biologically rich riparian corridor, open rangeland, and other undeveloped areas. These sites provide wildlife habitat and recreational opportunities, and preserve scenic vistas. This support for resource conservation is reflected in the Livingston Comprehensive Plan, which calls for the protection of open space and the Yellowstone corridor. Recently, city council approved a policy for reinvesting proceeds from the sale of city land back into the preservation of open space and maintenance of existing parks.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 30,000	Montana Conservation Corp
<b>Estimated Total Project Cost:</b>	\$ 130,000	
<b>Amount Recommended:</b>	\$ 27,000	Grant

**Project No. 46**

<b>Applicant Name:</b>	Yellowstone County
<b>Project Name:</b>	Alkali Creek Streambank Stabilization and Park Landscape

This project takes a little different approach by focusing on issues outlined in the state Water Plan. This streambank stabilization and streamflow restoration project addresses the following issues: (1) cumulative impacts on water quality; (2) non-point source pollution impacts and monitoring to determine the effectiveness of water resource management (currently there is no comprehensive system in place for monitoring, so this project might serve as a demonstration model); and (3) administrative coordination by integrating water resource management practices that improve water quantity and quality in Montana.

This Yellowstone County project will preserve and protect a “healthy” riparian area alongside Alkali Creek. This area already supports many water- loving plants such as willow, cottonwood, cattails, and slough grass. Reduction or removal of these natural vegetated grounds would cause increased streambank erosion and water quality degradation. Preserving or protecting the lush riparian areas and wetlands in our state will accomplish the following:

1. Slow flood flows, thus reducing erosion as well as property loss.
2. Secure food and cover for fish, birds, and other wildlife.
3. Keep water cooler in summer and prevent ice damage in winter.
4. Prevent and/or reduce water pollution by filtering out sediment, chemicals, and nutrients from runoff.
5. Provide important breeding habitat for birds and other wildlife.
6. Hold more water in the soil, slowly releasing it for longer season streamflows and groundwater recharge.

The \$100,000 requested will assist in preserving the quality of Montana's land, water, fish, air, wildlife, and renewable recreational opportunities. Benefits will be experienced by more than 600,000 persons who either reside in Montana or

visit the state. The project area is located on the northwest corner of MetraPark property and consists of land bordering Alkali Creek, its waterfall, and the southwest bank of the Yellowstone River.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 80,000	Metra Park
<b>Estimated Total Project Cost:</b>	\$ 180,000	
<b>Amount Recommended:</b>	\$ 100,000	

**Project No. 47**

<b>Applicant Name:</b>	Fort Peck Rural County Water District
<b>Project Name:</b>	Fort Peck Rural Water System Development

The residents of the Fort Peck Rural County Water District have an urgent need for a reliable water supply system. No public water system currently serves the district and groundwater sources are not potable. Residents currently haul their water from the town of Fort Peck or directly from the reservoir. Hauling water is not only a severe hardship, it is also unsanitary. Trucks used to haul water consume a non-renewable resource.

The 24,160-acre water district is located in southern Valley County, near the town of Fort Peck. The southern portion of the district is bordered by Fort Peck Reservoir, constructed as part of the Pick-Sloan Missouri Basin Program. About 562 people live in the district, with planning for a population of 744. Development of this drinking water supply project would not only provide water to 744 people, but also to 3,000 cattle, to the partially developed U.S. Army Corps of Engineer campgrounds, and various commercial operations that are within district boundaries. More than 280,000 people per year visit the Corps of Engineer facilities and area recreation facilities.

The absence of a municipal, rural, and industrial water system has discouraged population and economic growth in the district. Groundwater in most of the district is of poor quality and limited in supply. Approximately 95 percent of the residents haul all their water from Fort Peck Lake or the town of Fort Peck to meet domestic needs. The remaining 5 percent use groundwater but still haul small quantities of water for drinking.

The reservoir is seen as the best water source for a municipal water system. The reservoir water is considered to be of good quality, requiring only conventional treatment.

The 1994 Final Engineering Report included an "Environmental Report" to evaluate each alternative presented for potential environmental impacts. The total impact for all of the alternatives was considered to be relatively minor and temporary.

From the 15 evaluated alternatives, Alternative IIIB was selected as the recommended plan. This plan would provide a fully pressurized water system to all residents of the water district.

The capital and life-cycle costs for Alternative IIIB are estimated at \$5,708,000 and \$6,826,000, respectively. Life-cycle costs represent the total cost of a system, including capital, operation, maintenance, and replacement costs over a period of 40 years.

A minimum funding support of 75 percent of capital costs is necessary to develop the water system. The user rates, including construction and operation and maintenance costs, would still be \$83/month even with this support.

Amount Requested:	\$ 36,000	Grant
Other Funding Sources:	\$ 3,000	Project Sponsor
Estimated Total Project Cost:	\$ 39,000	
Amount Recommended:	\$ 36,000	Grant

**Project No. 48**

**Applicant Name:** Yellowstone Conservation District  
**Project Name:** Watershed Planning in Montana Intergrating Geospatial Information

Geospatial information systems are a technical scientific tool used to collect, monitor and assess complex databases. It is also a non-technical information resource, much like a public library. Such systems can make issues clear and understandable through the development of computer generated maps that display the relationship between spatial and tabular data.

Geospatial and coordinated natural resource planning committees and task forces created by the Montana legislature and federal, state, and local governments have all identified the need for inter-agency collaboration in the development and use of this technology for land-use planning in Montana.

One of the identified obstacles to implementing and strategically planning for the growth of geospatial information systems in Montana is the need to establish a statewide framework--including data sharing, data coordination, data access, data collection, and data management.

This project is designed to address these and other related issues. The conservation district will field test a geospatial planning prototype in a watershed area in the Greater Yellowstone Region.

The geospatial prototype was created by a team of federal and state land planning agencies, lead geospatial researchers from Montana's universities, city and county planners, and private citizens and planners involved in local watershed planning.

Implementation of the prototype will establish Montana's first comprehensive geospatial based watershed planning effort that connects environmental, social, and economic information and makes it accessible to local decision makers through a standardized geospatial information systems framework.

After field testing, the model will be revised to reflect actual field experience and demonstrated to other planning groups in Montana.

Amount Requested:	\$ 100,000	Grant
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<b>Other Funding Sources:</b>	\$ 5,674	Project Sponsor
	\$ 2,000	Yellowstone County
	\$ 72,146	Federal Agencies
	\$ 20,180	State and Local
<b>Estimated Total Project Cost:</b>	\$ 200,000	
<b>Amount Recommended:</b>	\$ 100,000	Grant

**\*\*\*\*\*The Following Projects Are Not Recommended for Funding\*\*\*\*\***

#### **Project No. 49**

**Applicant Name:** Town of Culbertson  
**Project Name:** Wastewater Collection and Treatment Project

The merits of the Town of Culbertson's Wastewater Collection and Treatment Project support the purpose of the Renewable Resource Grant and Loan Program by providing a safe sanitary wastewater system for the environment, residents, and employees of Culbertson.

Safety and sanitary concerns have been the driving force behind the proposed project. In 1991 and 1993, a pipe service company cleaned, televised, and reported on the following problems and the potential health and safety hazards of the wastewater system:

1. Manholes are rusted through.
2. Manhole inverts do not allow proper sewage flow.
3. Infiltration with the collection system.
4. Cracks and holes within the sewer piping, a possibility of street cave-ins.
5. Improper lift station operation.
6. Lift station check valves are buried in the ground.
7. Sludge build-up within the lagoon treatment system (1½ to 3 feet deep).
8. Dike erosion, cattail growth, and muskrat burrows.
9. Lack of lagoon system transfer piping.

It is the intent of the proposed project to address three key elements of the Renewable Resource Grant and Loan Program. To protect, manage, and develop the Town of Culbertson's wastewater and treatment facility and Montana's renewable resources, the following objectives need to be implemented:

<u>Objectives</u>	<u>Expected Results</u>
Rebuild banks	Prevent leaks into the Missouri River
Remove large cattails	Deter erosion and muskrat infiltration
Replace cracked and broken wastewater lines	Prevent groundwater contamination
Reconstruct manhole	Maintain safe, effective, efficient system

The Town of Culbertson is dedicated to ensure the public safety and health of its wastewater and treatment system and Montana's renewable resources, but outside financial assistance is needed.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 313,259	TSEP Grant
	\$ 162,709	SRF Loan
	\$ 50,550	Sponsor Sewer Fund
<b>Estimated Total Project Cost:</b>	\$ 626,518	
<b>Amount Recommended:</b>	No Funding Recommended	

**Project No. 50**

<b>Applicant Name:</b>	Eastern Agricultural Research Center
<b>Project Name:</b>	Alternative Irrigation Systems and Alternative High Value Crops for Economic Development of Our Water Resources

A lot of regional interest has been generated in eastern Montana (and western North Dakota) for agricultural diversification and value-added food processing through irrigation development of our water and land resources in the MonDak region. The experiment station (Eastern Agricultural Research Center) at Sidney has been asked to direct new irrigated research efforts with high value crops under mechanical sprinkler irrigation systems. This project will develop an alternative irrigation system to gravity flood irrigation to permit the introduction, production, and value-added processing of high value crops on thousands of acres of irrigable land in the MonDak region. The major thrust of area conservation districts and economic development groups to date has been to secure and provide grants to purchase a linear sprinkler irrigation system to demonstrate its water conservation potential. This system would irrigate more acres with less water and help alleviate environmental concerns of irrigated agriculture. This grant project will test and evaluate high value irrigated crops under mechanized sprinkler irrigation in comparison with conventional gravity furrow flood irrigation. The crop performance and quality of the high value crops and the irrigation efficiencies of the sprinkler irrigation system will be determined and compared to conventional gravity flood irrigation to assess the potential of this alternative irrigation system and potential of high value crops in our agri-economic environment. The project will promote the improvement of irrigation and fertilization technologies and promote high value crop production, processing, and marketing as part of a region-wide effort of growers, economic development groups, agri-businesses, brokers, and processors to develop our water and land resources.

<b>Amount Requested:</b>	\$ 60,000	Grant
<b>Other Funding Sources:</b>	\$ 93,600	Project Sponsor
	\$ 30,000	Mt. Dept. Of Agriculture
	\$ 15,000	Williston Area Economic Foundation
	\$ 5,000	North Dakota Ag. Product Util. Comm.
	\$ 10,000	Mckenzie Co. Economic Development
	\$ 10,000	Valmont Industries
	\$ 20,000	Agri Industries
<b>Estimated Total Project Cost:</b>	\$ 243,600	
<b>Amount Recommended:</b>	No Funding Recommended	



**Project No. 51**

**Applicant Name:** Richland County  
**Project Name:** Lone Tree Creek Channel Rehabilitation

The Lone Tree Creek Channel Rehabilitation Project addresses the minimum defined flow channel of Lone Tree Creek, which runs through the County of Richland including the City of Sidney. The project's intent is to study, design, and construct modifications to the flow channel of Lone Tree Creek from the discharge of the Vaux Dams to the Yellowstone River floodplain. With the advent of the study, the following will be accomplished:

- Determination of areas that need modifications
- Cost/Benefit Ratio
- Utilization of existing land use
- Construction/Rehabilitation of modifications
  - Channel Widening
  - Clearing
  - Grubbing and/or Grading

To ensure adequate flow carrying capacity of Lone Tree Creek, the County of Richland is also in the process of submitting an application to the Treasure State Endowment Fund and designating Montana Department of Transportation (DOT) Urban funds to replace two bridges. The cost of the two structures and the channel modification is estimated at \$797,500.00.

The existing channel of Lone Tree Creek is hampered by dense stands of trees and brush measuring 3 to 6 inches. Lone Tree Creek is fed by an 84-square-mile drainage basin and is impounded by several dams. (In 1995, the largest dam located upstream from Sidney was modified in accordance to dam safety rules.) Lone Tree Creek is experiencing frequent and longer discharges in its downstream reaches. These discharges encounter trees and debris found in the channel creating back-up.

The back-up caused by obstructions of the natural flow increases the risk and severity of flooding to residential homes and to the following facilities:

Sidney/Richland Airport, Richland County Shop, Sidney Country Club, Richland County Fairgrounds, Lower Yellowstone Main Canal, Westside Elementary School, Richland County Housing Authority, Community Memorial Hospital, strip mall (five stores), fast-food restaurant, gas station, and the motel.

<b>Amount Requested:</b>	\$ 100,000	Grant
<b>Other Funding Sources:</b>	\$ 98,750	Richland County
	\$ 200,000	DOT Application
	\$ 398,750	TSEP Application
<b>Estimated Total Project Cost:</b>	\$ 797,500	
<b>Amount Recommended:</b>	No Funding Recommended	

# **CHAPTER 3**

## **Coal Severance Tax Loans to Public Entities**

### **Application Administration and Project Review Procedures**

DNRC refers to public loans for more than \$200,000 as "large loans." These large loans, unlike smaller public loans, typically are offered without any grant subsidy. In lieu of grants, loans are offered at interest rates lower than the rate for coal severance tax bonds. In the past, grants have not been provided in combination with large loans, but statute does not preclude the legislature from authorizing grants in combination with a large loan. DNRC does not solicit or recommend combinations of grant and large loan funding. Recommendations are made to be consistent with past legislative action.

Applications for large loans are accepted by DNRC's Resource Development Bureau until May 15 of each even-numbered year at the same time other applications are due from public applicants under this program. A \$250 application fee is required with each application for a large public loan. These loans are provided with proceeds from the sale of coal severance tax secured bonds and frequently are offered at a subsidized interest rate. The subsidy is paid with coal tax revenues.

### **Project Solicitation**

Applications for large loans are solicited through the same process DNRC uses to solicit other public grant and loan applications described in Chapter 2. The availability of low-interest loan funds is widely advertised through direct mailings, press releases in association and commercial newspapers, and with contact made during promotional workshops conducted by DNRC, DOC, and DEQ at the local level. The same application form is used to solicit both grant and loan applications.

### **Application Review**

All large loan applications received by the deadline are evaluated for completeness. Those missing documentation, application fees, or other basic requirements are notified and allowed time to submit additional material. After applications are reviewed for completeness, and any additional information needed is obtained from the sponsor, completed applications are given to the team of key reviewers for review and evaluation. Figure 2, in Chapter 2, shows the flow of the application review process. Loans are reviewed to determine financial, economic, technical, and environmental feasibility.

### **Funding Recommendations**

All feasible large loan applications eligible for funding receive a favorable funding recommendation if the applicant demonstrates the capability to repay the loan. DNRC's recommendation includes the amount of financing needed to meet project and financing expenses and the interest rate suggested. There is no maximum allowable funding level; large loans are limited to the amount an applicant has the ability to repay under the standard repayment terms and by DNRC's bonding capacity.

### **Availability of Loan Funds**

In 1981, at the same time the legislature created the former Water Development program, it also adopted SB 409 to

provide up to \$250 million in Montana coal severance tax bonds. Coal severance tax bonds are to be issued "for financing specific projects and activities in the state authorized by the Legislature." Statutes dictate that loans made from coal severance tax bond proceeds are to be administered by DNRC, and that DNRC is to review each project to determine its technical and financial feasibility.

Although the legislation was adopted in 1981, coal severance tax loans were not issued for the first few years because the constitutionality of the state's bonding authority under this program was initially challenged. In February 1984, the Montana Supreme Court ruled in the state's favor in *Grossman v. State of Montana*, and the first Montana coal severance tax bond was sold to finance loans during that same year.

In September 1985, the board of examiners adopted a general resolution pursuant to which all subsequent coal severance tax bonds have been issued. A copy of this resolution may be obtained from DNRC. The general resolution requires that bonds issued be secured on a parity basis. This means that all subsequent coal severance tax bond issues have the same right or ability on proceeds flowing into the trust fund to pay bond holders. However, to assure bond holders there always will be enough coal severance tax revenue to meet debt service payments, the general resolution restricts the cumulative amount of bonds that can be issued. This restriction is much more constraining than the \$250 million statutory limit. The general resolution does not allow any additional coal severance tax bonds to be issued if annual debt payments exceed 50 percent of the coal severance tax revenue allocated to the trust, plus 50 percent of the loan repayments received from local government borrowers.

## **Loan Repayment**

Coal severance tax revenue is used to pay the difference between payments received from local government borrowers and the state coal severance tax bond payments. Thus, coal severance tax bonds are paid with revenue from payments from local government borrowers along with coal severance tax proceeds.

To implement these repayment provisions, the statute established a fund structure within the permanent coal tax trust fund. Fifty percent of coal severance tax proceeds flowing to the permanent trust fund are first deposited in the coal severance tax bond fund. A portion of the proceeds deposited in the bond fund are transferred to the debt service account to pay for the interest rate subsidies. An amount equal to a year's debt service payment on all coal severance tax bonds is held in reserve in the bond fund.

Proceeds that exceed the subsidy payments and reserve requirement are transferred to the coal severance tax school bond contingency account. This fund was established to provide security to school bonds issued during the 1992-93 biennium. The remaining proceeds are then transferred into the Treasure State Endowment Fund and the coal severance tax permanent fund, which retains the remaining 80 percent of this income.

With the exception of the Treasure State Endowment Fund, the interest earnings associated with all account balances are transferred to the coal severance tax income fund. These interest earnings are then transferred to the general fund.

## **Interest Rates**

Loans may be provided at a rate less than the rate at which the state bond is sold, for all or part of the term. During the financial review of each loan application, DNRC prepares a funding recommendation that includes a recommended interest rate subsidy. Recommendations are developed to be consistent with past direction provided by the long range planning subcommittee of the legislature. In 1987, the legislature directed that the recommended subsidy for municipal projects typically be based on the user rate as a percentage of the "median household income." The schedule for subsidies with

respect to municipal projects is presented below.

1. If less than 1 percent of the median household income is required to pay user rates, no subsidy is recommended;
2. If the user rate is at least 1 percent but less than 2 percent, a 1 percent interest rate subsidy for 5 years is recommended;
3. If the user rate is at least 2 percent but less than 4 percent, a 2 percent interest rate subsidy for 5 years is recommended; and
4. If the user rate is more than 4 percent of the median household income, a 3 percent interest rate subsidy for 5 years is recommended.

The basic interest rate on coal severance tax loans is determined by the bond market at the time coal severance tax bonds are sold. The rate of interest on most loans from the program will vary in accordance with the rate on the state coal severance tax bonds. The basic rate of interest for each large loan financed from the proceeds of a single bond issue is the same. Subsidies vary, depending on legislative authorization.

## **Project Management**

DNRC reviews each large loan application to determine whether the project is financially feasible. A project is considered financially feasible if sufficient funds can be made available to complete the project, and if sufficient revenue can be obtained to repay the loan and to operate, maintain, and replace the project. After a large loan has been authorized by the legislature and when the project sponsor is ready to secure financing, DNRC performs a more thorough review of the applicant's ability to repay the loan. At this time DNRC may require access to the applicant's most recent financial statement, budget document, and other documentation in order to assess whether the proposed project is truly financially feasible.

If the borrower provides documentation of the ability to repay a loan and all legal requirements to incur debt are met, a bond purchase agreement is prepared and executed to make specific requirements and covenants with respect to a project or improvements to a project being financed. Borrowers must acquire all property rights necessary for the project, including rights-of-way and interest in land needed for a project's construction, operation, and maintenance. As appropriate, these and other stipulations also are contained in a bond resolution. Unless otherwise authorized, each loan--including principal and interest--shall be payable over a term approved by DNRC not to exceed the term authorized by the legislature. The cost of issuing the state's bond also is paid by borrowers.

Each borrower must agree not to sell, transfer, lease, or otherwise encumber the project, any portion of the project, or interest in the project without DNRC's prior written consent. Further, the borrower must notify DNRC of any changes or modifications in a project either before or during construction. Borrowers are required to acquire and maintain, with respect to the project, property and casualty insurance and liability insurance. Insurance policies must name DNRC as a certificate holder for notification purposes.

For local government revenue bonds, borrowers must establish a system fund to segregate the revenue of the system or district. Within the system or district fund, the following accounts are generally established: construction account, operating account, revenue bond account, reserve account, replacement and renewal account, and surplus account. These accounts ensure that the system's revenue and other funds are properly applied in a manner reasonably satisfactory to DNRC.

Loans are disbursed by warrants drawn by the state auditor, or by wire transfers authorized by the state treasurer in

accordance with the provisions of this rule and the bond resolution. No disbursement of any loan funds shall be made unless DNRC has received from the borrower (1) a duly adopted and executed bond resolution in a form acceptable to DNRC; (2) an executed bond in a principal amount equal to the loan amount, also in a form acceptable to DNRC; (3) a certificate from an official of the governmental unit stating that no litigation is threatened or pending that would challenge the governmental unit's authority to undertake the project, to incur the loan, to issue the bonds, and to collect revenue; (4) an opinion from the bond counsel that the bond is a valid and binding obligation of the borrower payable in accordance with its terms; and (5) any other closing certificates or documents that DNRC or the bond counsel may require.

## **Project Monitoring**

Procedures for monitoring projects to ensure the program's intent is met are primarily driven by project loan agreements between DNRC and the project sponsor. Site visits are made to all municipal water and sewer projects in the construction phase and to approximately 30 percent of all other projects to spot check for problems or to respond to a request for assistance from the project sponsor. Budget and staffing constraints preclude DNRC's site involvement for all projects.

Loan agreements require quarterly progress reports, expenditure reports, a final report, and annual financial reports over the term of the loan. Projects are closely monitored each quarter when quarterly reports are submitted. Borrowers submit documentation for all expenditures and these are checked against the loan agreement.

Borrowers must maintain proper and adequate records of accounts that show the complete and correct entries of all receipts, disbursements, and other transactions related to the project and, if applicable, the monthly gross revenue derived from the project's operation. Any segregation and application of the gross revenue resolution also must be shown in such reasonable detail as may be determined by the borrower in accordance with generally accepted accounting practices and principles.

Under the usual terms of DNRC's bond purchase agreement, each borrower must comply with reporting requirements during the construction period and continue to do so throughout the term of the loan. According to these requirements, within 180 days after the close of each fiscal year, the borrower must prepare and supply to DNRC an appropriate financial report with respect to the project for such fiscal year. Where applicable this report must include a statement that details the project's income and expenditures for the fiscal year, identifies capital expenditures, and separates them from operating expenditures; a balance sheet as of the end of the fiscal year; the number of premises connected to the project at the end of the fiscal year; the amount on hand in each account of the fund at the end of the fiscal year; and a list of the insurance policies and fidelity bonds in force at the end of the fiscal year, setting out each amount, the risks covered, the name of the insurer or surety, and the expiration date of the policy or bond.

## **Project Evaluation**

Through its monitoring efforts, DNRC conducts an on-going effort to evaluate the projects funded under the Renewable Resource Grant and Loan Program. This report provides a brief report to the legislature each biennium and has been accepted by the legislature for that purpose. Grant agreements are prepared based on applications submitted to the legislature and contingencies placed thereon as a result of the legislative review process. Projects are considered successful if they complete the scope of work outlined in the grant agreement.

From time to time the legislature has requested further evaluation in response to questions about the geographical location of projects funded, total funding amounts, and types of projects. DNRC will continue to respond to the legislature's direction in this matter.

## Treasure State Endowment Program Loans

The Treasure State Endowment Program (TSEP) was established in 1992 with the passage of a legislative referendum. Since that time, grants have been authorized for nearly all of the projects that have received an appropriation. These grants are funded from interest earnings of the TSEP fund within the Coal Severance Tax Trust. In addition to grants, the referendum also established the authority to make loans under TSEP. To provide this loan authority in statute, the purposes of the existing Coal Severance Tax Loan Program were amended to include all project types authorized under the TSEP referendum.

The Department of Commerce (DOC) is the administrative agency responsible for TSEP. DOC has staff and expertise to administer the overall TSEP and has a long history of administering several grant programs. DNRC has administered several loan programs for many years and has the staff and expertise to administer coal severance tax loans. As a result, the two agencies have agreed to work together on any TSEP loan request. DOC has taken the lead on promoting TSEP, including TSEP loans. DOC has also taken the lead on evaluating any TSEP loan applications. After receiving an application for a loan, DOC determines that the application is eligible and that the proposed project is feasible. In consultation with DNRC, DOC makes the recommendation to authorize a TSEP loan. For projects that are recommended for TSEP funding by DOC and the Governor's Office, DNRC includes these projects in HB 8, which authorizes projects for loans under the Coal Severance Tax Loan Program. These recommendations are then reviewed and acted upon by the long range planning subcommittee and ultimately the entire legislature. For those projects that are authorized for loan funding, DNRC will close and administer the loan. This includes working with the local government to establish a scope of work and budget for the loan under a bond purchase agreement, closing the loan, and collecting loan payments for the term of the loan. DNRC will periodically update DOC on the status of any TSEP loan. In some cases, the project will also receive a TSEP grant, so DOC will be directly involved with the project in this regard.

DOC is recommending loans for four projects. These projects are listed below in figure 4. For a complete description and evaluation of the project recommended, please refer to the TSEP Legislative Report submitted by DOC.

**Figure 4**      **Treasure State Endowment Loans**

Project Sponsor	Project Name	Loan Amount	Interest Rate	Term
City of Choteau	Sewer System Rehabilitation	\$110,000	Market Rate	20 years
Coram County Water and Sewer District	Water System Improvements	\$170,000	2% below the market rate for the first 5 years; at market for remaining term.	20 years
Fort Peck Rural County Water District	New Domestic Water System	\$1,325,000	3% below the market rate for the first 5 years; at market for the remaining term.	20 years
City of Livingston	Water System Improvements	\$300,000	1% below the market rate for the first 5 years; at market for the remaining term.	20 years

## Figure 5 Resource Development Public Loans

### Coal Severance Tax Loans

ID Number	Type	Applicant	Balance due	Closing	Termination
1) WDL-86-3050	CST	Anaconda-Deer Lodge County	\$363,503	1/08/1986	1/20/2006
2) WDL-93-3160	CST	Beaverhead Co/Red Rock W & S	2,315,087	8/06/1992	7/02/2112
3) WDL-85-3015	CST	Belgrade, City of	535,691	1/21/1985	1/21/2005
4) WDL-85-3043	CST	Bitterroot Irrigation District	895,664	9/17/1985	2/17/2016
5) WDL-91-3149	CST	Bozeman	293,415	4/01/1991	5/23/2011
6) WDL-89-3125	CST	Bozeman, City of	599,528	5/23/1989	5/23/2009
7) WDL-87-4395	CST	Broadwater Power Project	21,735,000	11/05/1987	11/05/2007
8) WDL-87-43951	CST	Broadwater Power Project	3,800,000	11/05/1987	11/05/2007
9) WDL-86-3053	CST	Charlo Water District	22,696	12/04/1985	12/04/2005
10) WDL-93-3165	CST	Columbia Falls, City of	1,072,049	12/31/1993	12/31/2013
11) WDL-85-3010	CST	Conrad	160,201	10/29/1984	10/29/2004
12) WDL-85-3029	CST	Culbertson, City of	402,742	7/01/1985	7/01/2005
13) WDL-88-3096	CST	Denton, City of	146,249	8/31/1987	9/01/2007
14) WDL-93-3162	CST	Dutton, Town of	126,485	9/15/1992	6/08/2012
15) WDL-93-3162a	CST	Dutton, Town of	24,282	9/15/1992	6/08/2012
16) WDL-85-3048	CST	East Bench Irrigation District	602,286	6/29/1987	7/02/2017
17) WDL-88-3104	CST	East Helena	349,767	2/02/1988	2/02/2008
18) WDL-87-3079	CST	Ekalaka	143,642	8/15/1986	8/15/2006
19) WDL-85-3014	CST	Ennis, Town of	117,049	11/30/1984	11/30/2004
20) WDL-96-3200	CST	Ennis, Town of	750,000	5/15/1996	5/01/2016
21) WDL-91-3147	CST	Fairview, City of	232,605	11/26/1990	7/01/2010
22) WDL-93-3163	CST	Flathead Co	3,529,702	12/31/1992	7/05/2013
23) WDL-93-3174	CST	Forsyth, City of	362,296	11/01/1993	5/14/2013
24) WDL-96-3203	CST	Forsyth, City of	312,807	2/27/1996	11/01/2015
25) WDL-86-3054	CST	Fort Benton, City of	525,674	12/30/1985	12/30/2005
26) WDL-90-3134	CST	Gardiner Park Co Water Dist	298,634	0/31/1989	7/01/2009
27) WDL-88-3097	CST	Glasgow, City of	2,427,180	10/02/1987	7/01/2007
28) WDL-91-3146	CST	Glendive, City of	1,516,133	3/14/1991	1/01/2011
29) WDL-88-3108	CST	Harlem, City of	321,995	5/08/1988	5/01/2008
30) WDL-86-3051	CST	Havre, City of	1,811,228	12/02/1987	12/02/2005
31) WDL-87-3086	CST	Lakeside County Sewer District	64,583	3/20/1987	3/01/2007
32) WDL-87-3091	CST	Lakeside County Sewer District	595,857	7/07/1987	3/01/2007
33) WDL-85-3013	CST	Libby, City of	383,424	12/03/1984	1/03/2005
34) WDL-88-3103	CST	Lima	193,469	1/25/1988	2/01/2008
35) WDL-87-3087	CST	Lockwood Irrigation District	188,742	3/26/1987	4/01/2007
36) WDL-90-3138	CST	Miles City	1,338,366	5/21/1990	6/01/2010
37) WDL-89-3114	CST	Mill Creek Water and Sewer Dist.	780,108	10/14/1988	7/15/2020
38) WDL-96-3213	CST	Neihart, Town of	150,000	6/20/1996	6/01/2016

<b>ID Number</b>	<b>Type</b>	<b>Applicant</b>	<b>Balance due</b>	<b>Closing</b>	<b>Termination</b>
39) WDL-89-3117	CST Pondera Co	Canal & Reservoir	468,942	1/11/1989	6/01/2009
40) WDL-94-3176	CST Pondera Co	Canal & Reservoir	348,573	5/20/1994	6/01/2009
41) WDL-86-3052	CST Poplar, City of		288,519	11/12/1998	11/12/2005
42) WDL-85-3017	CST Sage Creek Co	Water District	\$606,016	1/31/1985	1/31/2015
43) WDL-90-3145	CST Sanders Co	Water Dist at Noxon	129,465	6/14/1990	6/15/2010
44) WDL-85-3011	CST Shelby, City of		384,961	11/02/1984	11/02/2004
45) WDL-87-3078	CST Shields Canal	Water Users Ass	22,293	6/01/1986	12/15/2006
46) WDL-91-3148	CST Sun Prairie	Sewer District	501,303	10/15/1990	7/01/2010
47) WDL-93-3173	CST Sun Prairie Vlg	Co Water/sewer	185,817	1/25/1994	11/01/2013
48) WDL-85-3044a	CST Three Forks, City of		187,859	1/14/1986	1/14/2006
49) WDL-85-3044b	CST Three Forks, City of		119,403	1/14/1986	7/14/2006
50) WDL-85-3047	CST Upper Musselshell	Water Users	135,389	6/12/1985	12/01/2005
51) WDL-88-3101	CST West Yellowstone, City of		377,868	12/30/1987	7/01/2007
52) WDL-89-3127	CST West Yellowstone, City of		595,124	6/30/1989	1/01/2009
53) WDL-87-3084	CST White Sulphur Springs, City of		305,594	3/02/1987	3/02/2007
54) WDL-93-3175	CST Whitefish, City of		456,496	8/17/1993	12/01/2013
55) WDL-87-3093	CST Whitehall, City of		54,060	11/09/1987	11/01/2007
56) WDL-91-3152	CST Wibaux		214,987	6/25/1991	7/01/2011
57) WDL-86-3067	CST Yellow Water	Users Assoc	21,775	10/11/1985	7/01/2005
58) WDL-86-3060	CST Yellowstone County		208,685	3/13/1986	3/14/2006
59) WDL-86-3066	CST Yellowstone County		273,960	3/13/1986	3/14/2006
<b>Total Coal Severance Tax Loans</b>			<b>\$55,375,255</b>		

### **Water Development Loans**

<b>ID Number</b>	<b>Type</b>	<b>Applicant</b>	<b>Balance due</b>	<b>Closing</b>	<b>Termination</b>
1) WDGL-85-8005	GO Antelope Co	Water/Sewer Dist	\$71,511	1/03/1986	1/10/2016
2) WDGL-85-3030	GO Culbertson, City of		62,257	7/01/1985	7/01/2005
3) WDGL-85-8006	GO Hamilton, City of		65,419	12/08/1986	3/01/2006
4) WDGL-84-8004	GO Winnett, Town of		56,902	5/30/1984	5/30/2004
5) WDL-89-3128	RRD Cut Bank N	Glacier W/s Dist	70,773	9/28/1990	6/07/2010
6) WDL-85-8006	RRD Hamilton, City of		16,087	12/08/1986	3/01/2006
7) WDL-87-3082	RRD Kevin, Town of		121,377	11/10/1986	11/10/2006
8) WDL-88-310	RRD Lakeside	Water District	75,716	7/27/1988	7/01/2008
9) WDL-87-3083	RRD Park County	RSID #7	109,582	12/22/1986	12/22/2006
<b>Total Water Development Loans</b>			<b>\$649,587</b>		

**Total Outstanding Public Loans: \$56,024,882.99**



**Figure 6      Loans Authorized in 1995 And Seeking Reauthorization****Coal Severance Tax Loans--HB 8**

<b>Applicant</b>	<b>Amount</b>	<b>Rate</b>
DNRC-Deadman's Basin Water Quality Improvements	\$111,081	Market Rate
City of Bozeman-separator Waste Treatment Facility	18,850	Market Rate
Town of Hysham-Wastewater System Improvements	200,000	Market Rate
Sun River Water District-Water System Development	250,000	Market Rate
Town of Whitehall-Water System Improvements	400,000	1% Below 1st 5 Yrs.
Hill County Water District-Water Treatment Plant	400,000	2% Below 1st 5 Yrs.
East Glacier Water and Sewer District-Midvale Diversion	76,537	Market Rate
Hill County-Salinity Control Project	50,000	Market Rate
Town of Ennis-Water System Improvements	350,000	1% Below 1st 5 Yrs.
City of Forsyth-Water Treatment Plant Improvements	1,218,916	2% Below 1st 5 Yrs.
City of Glendive-Water Treatment Plant Improvements	2,240,762	2% Below 1st 5 Yrs.
Seeley Lake Missoula County Water District-Water Treatment Plant	922,150	2% Below 1st 5 Yrs.
City of Whitefish-Water System Improvements	5,535,800	2% Below 1st 5 Yrs.
Huntley Irrigation District-System Improvements	3,478,767	3.5% for 20 Yrs.
DNRC-North Fork of the Smith-Dam Improvements	1,035,467	4.5% for 20 Yrs.
Tin Cup Irrigation District-Dam Improvements	304,204	4.5% for 20 Yrs.
<b>Total CST Loans Authorized or Reauthorized in H.B. 8</b>	<b>\$16,732,534</b>	

**Figure 7      Loans Authorized in 1995 That Have Been Canceled**

<b>Applicant</b>	<b>Amount</b>
City of Conrad-Water System Improvements	\$50,000
Greenfields Irrigation District-Irrigation System Improvements	50,000
Town of Manhattan-Water System Improvements	50,000
Dodson Irrigation District-Irrigation System Improvements	31,326
Fort Shaw Irrigation District-Irrigation System Improvements	200,000
Huntley Water and Sewer District-Water System Improvements	50,000
Mill Creek Water & Sewer District-Irrigation System Improvements	151,000
Hilger Water and Sewer District-Wastewater System Improvements	50,000
Town of Rycgate-Water System Improvements	150,000

## **CHAPTER 4**

### **Renewable Resource Grants and Loans to Private Entities**

#### **Grant Application Administration and Project Review Procedures**

As discussed in Chapter 1, applications for water-related projects from any individual, association, for-profit corporation, or not-for-profit corporation may be considered for funding. Only water-related projects may be funded. They must have quantifiable benefits that will exceed costs. Projects must also provide public benefits in addition to any private benefits.

#### **Project Solicitation**

To solicit applications from private entities that provide significant public benefits, DNRC has chosen to target public water systems operated by private water user associations and small agricultural projects that need help. The agricultural projects have included inspection on private high-hazard dams and water measuring devices on chronically dewatered streams. To this end, DNRC has contracted with Montana Rural Water Systems, Inc. (MRWS) to solicit projects from private drinking water systems, review projects, and advise DNRC on their validity, feasibility, and performance. Dam and water measuring projects were solicited by the Dam Safety Bureau and the Water Management Bureau of the Water Resources Division of DNRC. Project proposals have been accepted until August 30, 1996. Grantees are given one year to complete the project.

Information requested in the application includes:

- Name, address, and telephone number of applicant.
- Description of the problem, including the history and alternative methods of rectifying the problem.
- Complete budget information, including funding sources and cost comparisons of the alternatives.
- Description of the public and private benefits of the project and the need and urgency of the project.
- Environmental impacts of the project, both positive and negative.
- Technical information and approval by DEQ, EPA, or other responsible enforcement agency.

#### **Application Review**

All applications received by MRWS were evaluated and ranked according to the extent each application represents a project that is critically needed, will protect public health, provides opportunities for resource conservation, and improves the environment. Applications received by Dam Safety and Water Management bureaus were reviewed by them, and submitted to Resource Development Bureau with a recommendation. All applicants must hold or be able to acquire all necessary lands other than public lands and interests in the lands and water rights necessary for the construction, operation, and maintenance of the project.

Criteria for evaluating private grants are similar to the criteria outlined in Chapter 2 for public grants. For example, economic feasibility is judged to verify that the anticipated benefits directly attributable to a project will exceed all associated costs. Like public grants, private grants are also evaluated to determine the potential adverse environmental impacts, in compliance with the Montana Environmental Policy Act. Projects that would result in significant impacts would not be recommended for funding by DNRC until an environmental assessment or environmental impact study has been accomplished. Recommendations are made to minimize impacts and to ensure that appropriate steps are taken to protect the environment. Any potable water system project must be approved by DEQ to assure that it meets state standards.

## **Funding Recommendations**

Statute provides criteria for the selection of grant projects and authorizes DNRC to review and approve projects to the extent that grant funds are appropriated by the legislature. In the past, however, DNRC has not received an appropriation for private grants. Historically, private grant applications were solicited, reviewed, ranked, and administered with public grant applications. DNRC removed specific references to private individuals in legislative reports and during its legislative presentations. Legislative appropriations then were made to individual private projects identified by the project title, with the project sponsor listed only as "Private Applicant."

According to Montana's constitution, appropriations may not be made to individuals. To provide for private grants in 1993, DNRC requested a lump sum appropriation to fund private applications under an application process separate from the process used for public grants. The legislature provided \$100,000 to fund grants to private entities in 1993 and 1994. They also provided \$100,000 to fund grants to private entities in 1995 and 1996.

DNRC's role is to review and screen grant requests to determine whether the proposed projects are technically and financially feasible. DNRC will evaluate MRWS, Dam Safety, and Water Management recommendations based on criteria outlined in statute; within funding constraints, the highest ranked projects will be recommended to DNRC's director for funding. Grants will be recommended only for projects where need and urgency are documented. Feasibility studies, research, or public information projects will not be recommended for funding. By law, grant funding for any project may not exceed 25 percent of the total estimated cost of the project.

## **Project Management**

After DNRC's director has acted on the funding recommendations prepared by staff, DNRC will notify the applicants of their funded or not-funded status. DNRC does not reimburse any project cost incurred before a formal funding agreement is executed.

## **Project Monitoring**

Procedures for monitoring projects, to ensure the program's intent is met, are primarily driven by a project grant contract agreement between DNRC and the project sponsor. The equivalent of one full-time staff person administers active private grants and all private loans. MRWS has agreed to provide technical support to private grant projects during design and construction phases. Budget and staffing constraints preclude DNRC's site involvement at all projects.

Grant agreements, as with contract instruments used for DNRC's other state and federal grant programs, require quarterly progress reports, expenditure reports, and a final report. During a project's contract term, the project sponsor must submit quarterly reports to DNRC. These reports must reflect the percentage of the project completed, the project costs to date, any problems encountered, and the need for any amendment to the grant contract. Projects are closely monitored each quarter when quarterly reports are submitted. In response to any problems or needs for change in project scope, timeline or budget, amendments to grant agreement are prepared and issued.

Project sponsors must either pay all project costs, submit a claim and obtain a reimbursement of allowable costs from DNRC, or arrange for an advance of funds. Invoices may be submitted monthly, and all costs must be supported by invoices, receipts, or both. DNRC withholds 10 percent of the grant amount for surety until all contract requirements are met and the grant is closed.

As discussed in Chapter 2, the audit report prepared by the legislative auditor's staff recommends that DNRC provide

more documentation of decisions and conversations that affect on-going projects. In response to this recommendation, project monitoring staff has been directed to make notes to the file and to document conversations with correspondence. Staff will continue to closely monitor projects and to require that project sponsor provide documentation with quarterly reports. Amendments will continue to be the technique used to modify projects to adjust for problems or needed changes in scope, budget, or timelines.

## Project Evaluation

Evaluation of private grants will be accomplished in the manner used to evaluate public grants.

**Figure 8 Private Grant Applications in Calendar Years 1993 and 1994**

	<b>Applicant</b>	<b>Approved</b>
1)	Absarokee Water Users Association	\$ 3,400
2)	Bass Lake Reservoir Company	5,000
3)	Bass Lake Reservoir Company	180
4)	Big Sky of Montana	900
5)	Big Sky of Montana	2,625
6)	Briese, Darre G.	500
7)	Burroughs, Lee	160
8)	Canyon View Trailer Court	1,200
9)	Dennis Yatsko	1,000
10)	Devon Water, Inc.	200
11)	Eastgate Village	5,000
12)	Gildford Colony	1,800
13)	Grass Valley Mobile Court	3,400
14)	Havre Irrigation Company	194
15)	Jette Lake Landowners Association	3,400
16)	Jette Meadows Landowners Association	3,400
17)	LaCasa Grande Estates Water	3,400
18)	Lavina Crossing Cafe	800
19)	Lions Bitterroot Youth Camp	400
20)	Meadowland Unit #2	3,200
21)	Mount Pleasant Estates	2,800
22)	Pine Creek Store and Lodge	1,200
23)	Pipestone Water Users Association	671
24)	River Shore Mobile Home Park	3,400
25)	Riverfront RV Park	1,700
26)	River Wood Estates Homeowners	2,000
27)	Round Barn Restaurant	700
28)	Round Butte Water Company	3,400

	<b>Applicant</b>	<b>Approved</b>
29)	Sage Creek Colony	\$1,800
30)	Sweet Grass Canal & Reservoir	375
31)	Sweet Grass Canal & Reservoir	5,000
32)	West Glacier Water Users	3,400
33)	Windy Acres Water Users	3,400
34)	Yellowstone Truck Stop	600
		\$ 70,604

**Figure 9 Private Grant Applications in Calendar Years 1995 and 1996**

	<b>Applicant</b>	<b>Requested</b>	<b>Approved</b>
1)	Grant Creek Water Users	\$10,000	\$5,000
2)	Highland Park Water Users Assoc.	5,000	5,000
3)	Hook-U-Up RV Park	1,906	1,906
4)	Pondera Colony	875	875
5)	Rock Butte Water Users Assoc	5,000	5,000
6)	Seville Colony	20,500	5,000
7)	Tracy Water Users Assoc.	700	700
8)	Valley Vista Mobile Park	5,000	5,000
9)	Zortman Water Users Assoc.	1,336	1,336
10)	Hillside Colony (water)	5,000	5,000
11)	Hillside Colony (sewer)	5,000	5,000
12)	Glacier Colony	5,000	5,000
13)	Big Stone Colony	5,000	5,000
14)	Midvale Water Users Assoc.	5,000	5,000
15)	Corbin Water Users Assoc.	725	725
16)	Treasure State Acres Water Users	2,831	2,831
	<b>Total</b>	<b>\$78,873</b>	<b>\$58,373</b>

### **Private Loan Application Administration and Project Review Procedures**

Loans to private individuals also must promote and advance the beneficial use of water and allow Montana's citizens to fully use the state's water. Loan funding became available in 1981 when the legislature earmarked \$350,000 under the former Renewable Resource Development Program to finance loans to private individuals. At the same time, DNRC was given the authority to issue general obligation bonds to finance private loans.

### **Project Solicitation**

Projects are solicited through press release. When a bond is sold, a press release is sent to all newspapers in the state. Additionally, word of mouth, promotion by irrigation equipment dealers who are aware of the program, encouragement from local NRCS offices and conservation districts, and presentations by staff at various industry functions serve to solicit applications for loan funding.

## **Application Review**

Loan applications are submitted at any time. DNRC staff reviews the application for completeness and requests additional information when needed. Technical aspects of the project are usually completed by the NRCS or a private engineer. If the project is not designed by a qualified professional, DNRC will closely review the project design and specifications. Financial review is completed by DNRC and includes an evaluation of the applicant's financial strengths, weaknesses, and risk-taking ability. This also includes an evaluation of the security offered and a determination of the relative security position DNRC will have. All of these factors are considered in the recommendation to the loan committee.

## **Funding Recommendations**

Feasible private loan applications eligible for funding receive a favorable funding recommendation if the applicant demonstrates that the capability to repay the loan exists. Projects must be technically and economically feasible, and must pay for themselves over the life of the installation through water savings, increased crop production, or other measurable benefits.

For private individuals, \$200,000 is the maximum loan amount allowable under the Renewable Resource Grant and Loan Program. DNRC lends funds for a term not longer than 30 years or the estimated useful life of the equipment purchased or materials installed. For new irrigation equipment, 15 years is the allowable term; for used irrigation equipment, the term usually is 10 years or less.

## **Availability of Loan Funds**

DNRC has the authority to issue general obligation Renewable Resource bonds totaling up to \$10 million to finance private loans. The 1995 Legislature changed the statutes so that DNRC could have up to \$10 million of general obligation Renewable Resource bonds outstanding. Bonds totaling about \$10.8 million have been issued to finance private loans. A total of \$5.5 million in bonds have been paid off. To finance loans, DNRC sells bonds on the open market.

## **Interest Rates**

The rate of interest on the state's general obligation bond determines the interest rate for private loans. The basic rate for private loans has varied from 5.7 to 9.5 percent in part because the interest obtained by the state has varied. Tax law has also contributed to increased interest rates. Before 1986, state bonds sold to finance DNRC projects were tax-exempt. The tax law of 1986 thereafter prohibited financing private ventures with tax-free bonds. Therefore, bond sales to finance private projects after 1986 have been taxable (federal taxable, state tax-exempt). Because investors demand a higher interest rate on investments when their investments are subject to federal income tax, sale of these taxable bonds resulted in higher interest rates than those of the earlier, tax-exempt bonds.

In addition to interest costs, borrowers also pay a share of bond issuance costs proportionate to the percentage of the bond used to finance their loan. Higher interest rates and issuance cost charges have made private loans less attractive than those offered when the program first started. Although less attractive, private loans remain competitive with conventional financing because the rate on taxable bonds is still slightly under interest rates obtainable from conventional financing. DNRC's loans also provide financing at a fixed interest rate for a period longer than that available to borrowers through their local financial institutions.

Longer terms and competitive fixed interest rates, in most cases, make these loans continue to be attractive to borrowers interested in long-term financing for major equipment or system purchases. The exception are loans for less than \$10,000.

For small loans, closing costs will outweigh the benefit of DNRC's lower interest rate. DNRC recommends that projects needing less than \$10,000 seek funding from other sources. Closing costs include a \$150 non-refundable application fee and title insurance.

## **Project Management**

Borrowers must acquire all property rights necessary for the project including rights-of-way and interest in land needed for the construction, operation, and maintenance of the project. Title insurance, a title opinion, or other documents showing the ownership of the land, mortgages, encumbrances, or other liens must be provided to DNRC.

Loans must be secured with real property valued higher than the loan amount requested. According to statute, security equal to at least 125 percent of the loan's value is required. Loans may be secured with a first or second real estate mortgage, an assignment of accounts receivable, certificates of deposit, or similar securities, or other security as accepted by DNRC. To adequately secure the state's interest, DNRC requires a security equal in value to at least 150 percent of the loan. For example, a loan application for \$100,000 would require real estate security of \$150,000. DNRC will accept a second mortgage on property if the state's interest can be adequately secured. DNRC may require an appraisal of real property used for securing a loan. Cost of the appraisal must be paid by the applicant.

After an application is approved for financing, interim financing may be secured by the applicant, with interest costs included in DNRC's loan financing. The Renewable Resource Grant and Loan Program does not refinance existing loans; only new ventures are eligible.

Loans to private entities are disbursed by warrants drawn by the state auditor or wire transfers authorized by the state treasurer. Before disbursement can occur, all loan documents must be properly signed, security documents must be filed with the county clerk and recorder, the final title insurance policy must be in force, and an invoice must be submitted by the borrower to document the use of funds.

## **Project Monitoring**

Project construction is monitored by the NRCS if there is cost share money involved, by the borrower as he has a vested interest in the successful completion of the project, and by bureau staff through field visits when possible.

Borrowers must maintain proper and adequate records of accounts that show the complete and correct entries of all receipts, disbursements, and other transactions related to the project and, if applicable, the monthly gross revenue derived from the project's operation. Any segregation and application of the gross revenue resolution also must be shown in such reasonable detail as may be determined by the borrower in accordance with generally accepted accounting practices and principles.

## **Project Evaluation**

Through its monitoring efforts DNRC conducts an on-going effort to evaluate the projects funded under the Renewable Resource Grant and Loan Program. DNRC will continue to review each final report as has been done in the past. This review will be documented to indicate whether the project successfully completed the objectives outlined in the original application as specified in the loan agreement.

## Private Loan Projects Previously Funded

Figure 10 lists the status of private loans authorized under the Renewable Resource Grant and Loan Program since 1994. As of October 1996, 132 private loans had been approved since the program was started in 1991. A total of \$9,659,602 has been advanced, and \$134,000 is committed to projects but has not been disbursed. Loans have been used to finance projects involving new and refurbished irrigation systems, riprap, irrigation wells, and refurbishing private drinking water systems.

**Figure 10 Private Loan Summary 1994 - 1996**

Contract	Name	City	Loan Amount	Balance	Rate	Security
1)	94-3183 Benson, K	Scobey	\$73,450	\$66,581	5.65	1st on 190 Ac. 2nd on 2247 Ac.
2)	94-3178 Cottom & Sons	Dillon	90,460	89,533	5.65	2nd on 1,035 Ac.
3)	94-3179 Cottom Farms	Dillon	88,080	87,181	5.65	2nd on 700 Ac.
4)	95-3186 Crane, C.	Choteau	51,720	51,720	5.65	2nd on 400 Ac.
5)	94-3182 Lacher, M.	Fairfield	36,000	33,972	5.65	2nd on 158 Ac.
6)	95-3185 Lazy K 6 Ranch	Ft. Benton	67,500	52,336	5.65	1st on 1,748 Ac.
7)	94-3177 Malesich Ranch	Dillon	115,526	115,526	5.65	2nd on 6,413 Ac.
8)	94-3180 McInerney, M. & G.	Fairfield	50,656	50,656	5.65	2nd on 489 Ac.
9)	94-3181 Sampsen, R	Dagmar	121,83	117,598	5.65	2nd on 5,198 Ac.

## Private Loan Applications in Calendar Years 1995 and 1996

As of the end of October 1996, 30 loan applications had been received for the period of November 1994 through October 1996. Applicants requested a total of \$2,820,896. Twenty-seven of these loans were approved by DNRC's director and have received or will receive \$2,491,741. Figure 11 lists the application requests received and DNRC's recommendations.



**Figure 11****Private Loan Applications in Calendar Years 1995 and 1996**

Contract Number	Amount Requested	Amount Approved
95-3187	\$51,350	\$ 51,350
95-3188	53,435	53,435
95-3189	54,664	54,644
95-3190	115,000	115,000
95-3191	86,200	86,200
95-3192	111,000	111,000
95-3193	70,807	70,807
95-3196	20,000	20,000
95-3197	75,000	75,000
95-3198	60,000	60,000
96-3199	32,000	32,000
96-3201	98,451	98,451
96-3202	200,000	200,000
96-3204	150,000	150,000
96-3205	102,775	102,775
96-3206	90,000	90,000
96-3207	200,000	200,000
96-3208	56,780	56,780
96-3210	100,800	100,800
96-3211	121,600	121,600
96-3212	85,000	85,000
97-3219	162,622	162,622
97-3220	15,350	15,350
97-3221	179,907	179,907
97-3222	200,000	200,000
000	78,000	78,000
000	56,000	56,000
000	165,000	pending
000	80,000	pending
000	84,155	pending
TOTALS	\$2,820,896	\$2,491,761

## **CHAPTER 5**

### **Emergency Grants And Loans**

#### **Application Administration and Project Review Procedures**

In addition to the regular funding available during each Renewable Resource Grant and Loan Program funding cycle, limited funds are also available for immediate projects necessary to address qualified emergencies. These funds are reserved to help finance emergency projects otherwise eligible for grant or loan funding or both which, if delayed until legislative approval can be obtained, would allow substantial damage or legal liability to be incurred by the project sponsor.

Applications for emergency grants and loans are accepted by DNRC from public entities at any time an emergency occurs. No application fee is required.

#### **Project Solicitation**

No formal solicitation for applications is conducted. Engineering firms and other consultants likely to be involved with eligible emergency projects have been informed that emergency funds exist. During presentations to solicit applications for the regular public grant and loan program, the availability of emergency funding is discussed.

To request funds, applicants are required to submit a letter containing:

- A description of the problem.
- A statement of when the problem occurred.
- The proposed solution.
- Cost estimates and documentation.
- Documentation of the community's financial condition and ability to otherwise pay for the desired repairs.

In calendar years 1995 and 1996, seven emergency requests were submitted to DNRC. Of the seven applications received, four projects were funded.

#### **Application Review**

As with funding for other renewable resource projects, emergency funds must be used for projects that enhance renewable resources in the state through conservation, development, management, or preservation; for assessing feasibility or planning; for implementing renewable resource projects; and for similar purposes approved by the legislature. All applications submitted are evaluated for completeness. Sponsors for those applications needing more documentation are notified and asked to submit additional material immediately.

Requests for emergency funds are reviewed by DNRC staff. DNRC's engineer conducts a site visit to investigate the problem and to determine feasible alternatives. During the site visit, the project is evaluated to determine its eligibility for funding under the Renewable Resource Grant and Loan Program. Projects must meet the statutory requirements of 85-1-605 (4), MCA, as a minimum to merit further consideration. Engineers and technical experts from other state agencies are made aware of the project and are solicited for technical opinions, guidance, and information.

## **Funding Recommendations**

As discussed in Chapter 1, statute allows DNRC to request up to 10 percent of the grant funds available each biennium to fund emergency projects. DNRC typically requests \$125,000 for emergency grants. DNRC will request an additional \$125,000 during the 1997 session to fund emergency grants for fiscal years 1998 and 1999.

Funding recommendations are made on a case-by-case basis within the constraint of available funding. As information is gathered and documented, a staff report with funding recommendations is written and presented to DNRC's director for an official decision as to whether the project should receive emergency grant or loan funding. Although no dollar limits are placed on individual projects, the limited total amount of funding available for the biennium dictates close management of funding limits for individual projects.

## **Project Management**

Based on the decision of DNRC's director, the sponsor is notified as to the status of its emergency funding application. If successful, the sponsor and DNRC enter into a formal agreement, and the project is managed in the same manner as other grants and loans.

## **Emergency Grant and Loan Applications in Calendar Years 1995 and 1996**

One application was received for an emergency loan, which was approved for funding in September, 1996. Of the six emergency grant inquiries and formal applications received during 1995 and 1996, investigations determined that three met the urgency and need criteria that have been established for the program.

Each emergency grant and loan request submitted during 1995 and 1996 was reviewed by DNRC staff and, based on the staff's recommendation, was approved or denied for funding by DNRC's director. Total funding for all emergency grants may not exceed the legislative biennial appropriation for emergency projects under the Renewable Resource Grant and Loan Program. \$1,000,000 per biennium is available for emergency loans. No emergency grant may be funded in excess of the biennial appropriation less the total of all emergency grants funded previously during the biennium.

## **Authorized Projects**

In 1995, the legislature authorized \$125,000 for emergency grants. During the 1996-1997 biennium, funded emergency grant and loan applications have included the following:

### **Town of Eureka**

#### **RRG-96-1031**

#### **\$34,285 Emergency Grant**

In July, 1995, heavy rains combined with high winds and excessive wave action caused a major breach in an earthen dam impounding approximately 100 acre-feet of treated wastewater being stored for land application by the Town of Eureka. The treated effluent flowed approximately one-half mile down a canyon and into the Tobacco River, causing substantial damage to the adjacent landowner's property and creating a serious environmental threat to the Tobacco River and Lake Koonanusa several miles downstream. Emergency DNRC funding combined with a no-interest loan available to the town through an existing Economic Development Grant and local government in-kind contributions made immediate repairs possible. The emergency repairs were completed in August, 1995, at a cost of \$132,855.66. The completed project was

inspected by DNRC and DEQ engineers in October, 1995, and is being monitored by DEQ for compliance with directives that were made as a result of the failure.

### **Lakeside County Water District**

**RRG-97-1050**

#### **\$90,000 Emergency [Temporary Loan Security] Grant**

In June, 1996, DNRC received a request for financial assistance from the Lakeside County Water District. The district's water system had experienced a near total depletion in stored water, and existing wells and pumps could not meet demand. An investigation revealed that the district had the capacity to borrow the funds necessary to drill and develop a new well; however, the Montana Board of Investments could loan up to only \$50,000 prior to a debt election. To allow the district to borrow the necessary \$140,000 to construct the well facility, DNRC pledged \$90,000 in emergency grant funding as temporary security until a debt election could be held by the district in November, 1996. Pending the successful passage of the debt election, the funding will revert back to the emergency grant program.

### **Westside Canal Company**

**EC-WCC-001**

#### **\$30,000 Emergency [Environmental Contingency Grants Program] Grant**

In June, 1996, heavy spring runoff and floating debris plugged an inverted siphon causing flooding and major damage to the Westside Canal near Dillon. Because the canal was owned by the Westside Canal Company, a private entity, funding to offset costs of the \$60,000 repair project was not available through the Renewable Resource Grant and Loan Program. However, DNRC administered a \$30,000 grant made available to the company through the Governor's Environmental Contingency Grants Program. A local contractor was hired by the company to construct a temporary emergency diversion around the failed siphon, thereby allowing the system to be back in full operation within one week during this critical period during the growing season.

### **Montana Department of Natural Resources and Conservation - Water Resources Division**

#### **East Fork Dam Emergency Rehabilitation Project**

#### **\$1,000,000 Emergency Loan**

In late June 1996, turbid water was observed in a pool at the toe of East Fork Dam in Granite County. Upon investigation by DNRC engineers and a consultant, it was determined that the probable cause of the turbidity was seepage through the earthfill dam and probable structural failure within the dam caused by a failure within the dam's internal drainage system. The dam is owned by DNRC but is operated and maintained by the Flint Creek Water Users Association, a non-governmental entity. Operation and maintenance reserves that had been collected by the association were utilized to hire a consultant who, with DNRC participation and cooperation, conducted a drilling program and field investigation to determine the cause and extent of the internal damage. It was determined that the dam's drainage system had deteriorated and had become clogged with sediment. This allowed internal hydraulic pressures to develop above acceptable levels, causing seepage to occur within the earthfill structure. A contractor was hired and major structural improvements were made to the dam, including the lining and/or replacement of the internal drainage system and the installation of relief wells to help relieve internal hydraulic pressures within the dam. A \$1 million emergency loan was made to DNRC's Water Resources Division to finance the major portion of the \$1.5 million emergency rehabilitation project. The loan will be repaid by the Flint Creek Water Users Association in accordance with a repayment agreement between the association and the Water Resources Division. Other funding sources included a \$110,000 grant from the Governor's Environmental Contingency Grants Program and additional contributions from DNRC's Broadwater Hydropower Earnings and Water Storage accounts. An additional \$71,484 in DNRC emergency grant funding may be available as a contingency pending the success of the Lakeside County Water District debt election in November 1996.

## **Projects Not Funded**

### **Town of Hobson**

In March 1996, the Town of Hobson made inquiry as to the availability of emergency funding to pay for a portion of repairs to the town's recently constructed wastewater treatment lagoon. The apparent lack of adequate subsurface drainage caused a section of the containment dike to slip; if allowed to continue, a possible tear in the cell liner would allow untreated wastewater to infiltrate the local aquifer. The project had been constructed primarily with grant funding from EPA administered by the Montana Department of Health and Environmental Science (now Department of Environmental Quality, or DEQ). Upon investigation, DEQ indicated that additional grant funding was available to correct the problem, but that several months may be required to process the grant request. Interim funding through DNRC's Emergency Grant Program was offered to the Town of Hobson to facilitate immediate repairs, but these funds were not utilized.

### **City of Laurel**

In March, 1996, the City of Laurel inquired as to the availability of emergency grant funding to reconstruct the inlet works for the city's Water Treatment Plant. Earlier that year, ice in the Yellowstone River had damaged the intake structure and the intake pipes supplying water to the treatment plant. The damage had already been repaired by a contractor hired by the city, and the city was looking for financial assistance to help pay for the repairs. An investigation revealed that the city was financially capable of paying for the project themselves, and a formal application was never made.

### **Canyon Creek Irrigation District**

In September 1996, Canyon Creek Irrigation District applied for emergency grant funding for required repairs to Canyon Creek Dam, a small dam in the Bitterroot-Selway Wilderness Area west of Hamilton. The dam, completed in 1910, impounds a 485 acre-foot reservoir used to store irrigation water for 151 small-acreage irrigators in the Bitterroot Valley. During the winter of 1996, ice buildup and heavy runoff combined to partially breach the structure. Because of the high-hazard classification of the dam, the district was instructed by DNRC that it must either repair or completely breach the dam prior to next spring's runoff. Based upon the current acreage assessment of \$2.00 per acre, grant funding was denied. The district levied a one-time maintenance assessment upon its members to raise capital for the approximately \$40,000 repair project.

## CHAPTER 6

### Summary of Grant Projects Funded by the Renewable Resource Grant and Loan Program in 1991, 1993, and 1995 Legislative Sessions

The status of all projects authorized in the prior three legislative sessions are reported here. Project status is reported in three categories:

- A. Completed and/or closed grant projects.
- B. Active grant projects.
- C. Authorized projects not yet executed

Within each of these categories, projects are listed alphabetically by the name of the grant recipient.

#### Completed and/or Closed Grant Projects

##### **Broadwater Conservation District Irrigation Water Management Demonstration Project RRD-92-5553**

A \$100,000 grant was authorized by the legislature in 1991. The project was completed in October 1994; all of the funds authorized were spent. Funds were used to develop a pilot demonstration irrigation water management project to improve the economics and environmental compatibility of irrigated agricultural operations through irrigation scheduling. Twenty-five irrigators with an average of 113.5 acres per field participated in the pilot project. Participants realized water savings of 51.3 percent, which amounts to about \$9.23 per acre. Crop yields were comparable to or better than yields achieved without irrigation water management.

##### **Chinook Division Irrigation District Measuring Devices RRG-94-1012**

A \$34,217 grant was authorized by the legislature in 1993. A grant agreement was executed in February 1994. The project has been completed and the grant agreement terminated on June 30, 1996 with \$6,703.37 of the grant funds spent. Project sponsor costs were less than anticipated because the U.S. Bureau of Reclamation contributed services more than expected at no cost to the sponsor. Funds were used to install measuring devices at the head works of each of the main diversion canals of five irrigation districts and to provide a means of record keeping. The measuring devices will allow an equitable distribution of water within the Chinook Division Irrigation District and will reduce the amount of water diverted from the Milk River. By using the measuring devices and limiting diversions to the amounts necessary, all distribution systems within the district will require less maintenance because they will not be degraded by excessive diversions.

##### **Circle , Town of Municipal Water Quality Improvement Project RRG-94-1001**

A \$36,000 grant was authorized by the legislature in 1993. The project was completed in November 1994; \$34,667.53

of the \$36,000 authorized grant was spent. Circle has a population of 805. Its municipal water supply is served by two deep water wells in the Fox Hill Sands. Well water contains high levels of fluoride, about twice the limit allowed by DEQ. The water also shows a high sodium and solids content. Funds were used to conduct a water treatment pilot study. The purpose of the study was to demonstrate that the treatment process (reverse osmosis) recommended in the December 1993 Water Treatment Master Plan was the appropriate treatment process for Circle's water source. Based on the data collected, reverse osmosis is very effective for removing fluoride and sodium from the raw water source. Throughout the pilot study, fluoride had an average removal rate of 97.6 percent and sodium had an average removal rate of 97.7 percent. This study has shown that the design recovery rate of 80 percent is appropriate and that a 15 percent blend is the most feasible blend ratio for the system. Some additional post treatment will be needed to reduce the corrosiveness of the blended water. Overall, this study has concluded that reverse osmosis is an appropriate process.

**Custer County  
Recycling Project  
RRG-94-1014**

A \$4,725 grant was authorized by the legislature in 1993. The project was completed in December 1994; all of the funds authorized were spent. Funds were used to purchase a recycling baler and a used forklift to expand the recycling efforts of Custer County and to increase the profitability of recycling cardboard. By increasing the bale size from 300 pounds to 1,000 pounds, the price received per ton has doubled. New local landfill regulations dramatically increased the amount of cardboard recycled. Volume has increased from 38,500 pounds during the first quarter of the grant to close to 225,000 pounds in the second quarter. Part of the increase came because the new baler also allows Custer County to serve the recycling needs of communities in surrounding counties including Terry, Jordan, and Colstrip.

**Darby School District No 9  
Darby School Park Project  
RRD-93-5559**

A \$25,300 grant was authorized by the legislature in 1991. The project was completed in February 1994; all of the funds authorized were spent. A multiple purpose park was developed on 6.5 acres of land between the elementary school and high school. The project involved the installation of an automatic underground irrigation system, professional surveying and grading of the area, upgrading of an old well and pump system to supply the irrigation system, planting of a variety of shrubs and trees for use in science studies, and the purchase and installation of outdoor science equipment and specialized playground equipment.

**Dutton, Town of  
Water System Improvements Project  
WDG-93-5107**

A \$91,319 grant was authorized by the legislature in 1991. A grant agreement was executed in 1993. The project, completed in 1995, was for the replacement of approximately 6,000 feet of water transmission line and the construction of a new chlorination facility.

**Eastern Sanders Conservation District  
Accelerated Soil Survey on Forest Lands  
RRG-94-1010**

A \$99,000 grant was authorized by the legislature in 1993. A grant agreement was executed in November 1993. The project was completed in March 1996. All of the funds authorized were spent. Funds were used to increase the staff

dedicated to the mapping of soils in parts of Flathead and Lincoln counties. Tasks included soil mapping, lab sampling and inventory, new series proposals, developing soil interpretations, and database maintenance. This project was instrumental to the completion of the Sanders County Area Soil Survey. The Natural Resource Conservation Service plans to formally publish the results of the survey in the spring of 1997.

**Ekalaka, Town of**  
**Water System Improvements Project**  
**RRG-94-5563**

A \$49,975 grant was authorized by the legislature in 1991. A grant agreement was executed in January, 1994. Completed in 1995, the project consisted of the construction of a new concrete water storage reservoir, connecting piping and controls, and the drilling and development of a new well and pumping facility.

**Ennis, Town of**  
**Water System Improvements Project**  
**93EN000**

A \$100,000 grant was authorized by the legislature in 1993. Because the water improvements project received grant funding in 1993 through HB 663 (TSEP funding authorization bill), the appropriation was terminated.

**Flathead Joint Board of Control**  
**Flathead Irrigation Information System Project**  
**WDG-92-5093**

A \$92,000 grant was authorized by the legislature in 1991. The project was completed in May 1993; \$91,000 was spent. Funds were used to initiate an irrigation information system and gather data to provide information and education to the Flathead, Mission, and Jocko irrigation districts. The cost effectiveness of irrigated agriculture operations in the Flathead River basin were to be improved by the project. The project demonstrated that sprinkler irrigation in Montana presents significant potential for improving energy and water use efficiency.

**Fort Peck Rural County Water District**  
**Water Engineering Study**  
**RRG-94-1002**

A \$40,000 grant was authorized by the legislature in 1993. The project was completed in November 1993; all of the funds authorized were spent. Funds were used to determine the costs, service area, and service level for a rural water system to serve an area west and north of the town of Fort Peck in southeast Valley County. Most residents in this area haul water due to the lack of a water-bearing formation underlying the region. The proposed project would serve about 250 to 300 residences, including the unincorporated areas of Park Grove, Wheeler, Duck Creek, the Fort Peck Lake cabins, and about 25 farms and ranches. Funds were used to prepare a preliminary engineering report for the newly formed district to provide an accurate assessment of funding needs; determine the feasibility and cost of providing service to the entire district; and choose the most cost-effective and efficient service level for the district's water users.

**Glasgow Irrigation District**  
**Improving Water Use Efficiency Project**  
**WDG-92-5094**

A \$100,000 grant was authorized by the legislature in 1991. A grant agreement was executed in October 1991; \$100,000



has been disbursed for the project. The Glasgow Irrigation District encompasses approximately 18,000 acres of irrigable land. The irrigation facilities that serve this district were constructed from 1915 to 1917, and many of the canals and other facilities are in need of rebuilding and rehabilitation. Water for irrigation is obtained from the Milk River. The grant provided cost share for a USBR Rehabilitation and Betterment loan. The total project cost was estimated at \$2.2 million and included funds to line 22 miles of laterals with slip form concrete or buried PVC lining, and 8 miles of Vandalia Canal with compacted earth. In addition, funds were provided to rehabilitate, extend, or construct 48 miles of drains.

**Glasgow Irrigation District  
Installation of Farm Delivery Headgate Measuring Devices  
RRG-94-1011**

A \$50,000 grant was authorized by the legislature in 1993. A grant agreement was executed in October 1993. The project has been completed with all grant funds expended. The grant agreement has been terminated. The project entailed a continuation of a USBR Rehabilitation and Betterment program under which Phase I was funded by a \$2.0 million USBR Rehabilitation and Betterment loan and a \$100,000 DNRC grant. Phase I funding provided the pre-casting of farm delivery headgate structures but excluded the installation. Inlet/outlet structures have deteriorated to the point where accurate, efficient water measurement and water delivery is not possible. With this grant, 123 of the 300 structures were replaced with structures approved by USBR.

**Greenfields Irrigation District  
Gravity Sprinkler Planning Project  
91GR000**

A grant submitted by the Greenfields Irrigation District was authorized by the legislature in 1991. No grant agreement was issued; funds were not disbursed for the project. Funds were requested to plan and design gravity pressurized sprinkler systems. The district planned to apply to USBR for construction funds through the Pick-Sloan Program. Due to the unavailability of funds from USBR, the project was abandoned and the appropriation terminated.

**Greenfields Irrigation District  
Main Canal Flow Control System  
95GR000**

A grant submitted by the Greenfields Irrigation District was authorized by the legislature in 1995. No grant agreement was issued; funds were not disbursed for the project. Funds were requested to construct control structures in the main canal in order to better control water flow and reduce the amount of wasting into Muddy Creek. The district has reevaluated the situation and proposed a new solution to this problem. The district has reapplied for grant funds this biennium to construct a reregulation reservoir that is better suited to address this problem.

**Hilger County Water and Sewer District  
Sewage and Collection Treatment Facilities  
93HI000**

A \$50,000 grant was authorized by the legislature in 1993. No grant agreement was issued; funds were never disbursed for the project.

**Hill County  
Salinity Control Project  
93HC000**

A \$50,000 grant was authorized in 1993. A grant submitted by Hill County was authorized by the legislature in 1993. No grant agreement was issued; funds were not disbursed for the project. Funds were requested to construct a drainage control system in the fairgrounds / shopping mall / industrial park area west of town. The area suffers from an acute saline problem. DNRC funding provided only 10 percent of the necessary project funds. The project sponsor was not able to secure the additional funding required to implement the project.

**Jefferson Valley Conservation District  
Cereal-legume Crop Rotations Project  
RRD-92-5554**

A \$48,677 grant was authorized by the legislature in 1991. A grant agreement was executed in April 1992; the project was completed in December 1994. \$33,152 was disbursed for the project. Funds were used to demonstrate the benefits of alternative cropping rotations, incorporating annual and perennial legume/pulse crops, to southwest Montana agricultural producers. Benefits included energy savings; reduced soil erosion; and enhanced soil productivity, water use efficiency, and farm profitability. As a result of the information disseminated through the project, some growers have since formed a statewide pea and lentil flower association to exchange information and help market these alternative crops.

**Lewis & Clark County Conservation District  
Irrigation Water Efficiency Project  
WDG-93-5100**

A \$100,000 grant was authorized by the legislature in 1991. The project was completed in December 1993; \$85,624.90 of the \$100,000 authorized grant was spent. Funding paid for the lining of 9,200 feet of the East Outlet Canal of Nilan Ditch and to evaluate on-farm irrigation systems and management. A total of 8,300 feet of ditch were actually lined; on-farm evaluations were conducted for 18 of the 20 members of the Nilan Water Users Association.

**Lower Musselshell Conservation District  
River Management Tools Project  
WDG-92-5095**

A \$72,539 grant was authorized by the legislature in 1991. The project was completed in December 1994; \$72,314 of the \$72,539 authorized grant was spent. The project was funded to provide a better means of managing stored water from Deadman's Basin during the irrigation season. Computer hardware and software to serve as a central repository for water use data was purchased and put into service. Problems with data collection and resulting higher costs to automate flow-related data meant that the purchase of data recorders and flumes to measure water flow in tributaries was not possible under the grant. Several tributaries are being monitored with recorders installed by DNRC in conjunction with USBR. The project has achieved its goals but is clearly an on-going effort with higher than anticipated costs.

**Meagher County Conservation District  
South Side Canal Lining Project**

A \$37,500 grant was authorized by the legislature in 1991. No grant agreement has been issued; funds have not yet been disbursed for the project. The project was proposed to line areas in a 15,000-foot section of the South Side Canal in Meagher County. The total cost of the project was estimated at \$150,000, with the applicant and the NRCS each

committing \$25,000. A grant for 25 percent of the total project cost but not more than \$37,500 was authorized. A loan was also authorized but would not be issued unless the South Side Canal Company formed an irrigation district eligible to incur public debt. The canal company did not form an irrigation district and the appropriation was terminated.

**Missoula County Conservation District  
Irrigation Diversion Alternatives Project  
RRD-94-5562**

A \$85,250 grant was authorized by the legislature in 1991. A grant agreement was executed in September 1993; the project was completed in June 1994. \$34,325.57 was disbursed. Funds were used to research alternative diversion designs, to select and finalize a design with consideration to urban expansion, riverfront development, and agriculture uses. The project sponsor chose not to use the remaining funds to implement the diversion design because it is feared the canal may be abandoned in the near future. Recent drownings in the last year have raised concerns over threats to public safety and the associated liability of maintaining large irrigation ditches in this increasingly urbanized area.

**Missoula County  
Linda Vista Subdivision Wastewater Collection System  
RRG-94-1008**

A \$100,000 grant was authorized by the legislature in 1993. A grant agreement was executed in June of 1994. The project, consisting of the construction of a wastewater collection and partial treatment system for the Linda Vista subdivision in Missoula County, was completed in 1995 and early 1996. DNRC grant funds were used with other funding provided by the Missoula County Water Quality District to help compensate homeowners for costs to abandon individual septic systems and connect to the newly constructed municipal system.

**Montana Department of Natural Resources and Conservation  
Battle Creek Storage Unit Project**

A \$37,500 grant was authorized by the legislature in 1991. No grant agreement has been issued; funds have not yet been disbursed for the project. Funds were requested to cost share the expense of developing additional water storage along Battle Creek. Funds for this project were terminated due to the creation of the water storage account developed specifically for this purpose.

**Montana Department of Natural Resources and Conservation  
Reforestation Projects on State Lands  
RRG-94-1006**

A \$60,000 grant was authorized by the legislature in 1993. A grant agreement was executed in February 1994; the project was completed in March 1996. \$60,000 was disbursed for the project. Funds were used to pay for reforestation on 477 acres of State Trust Lands in northwestern Montana. These sites were harvested between 1987 and 1990, had not been reforested, and likely would have remained non-stocked or poorly stocked without treatment. A total of 167,332 seedlings were planted over the course of the project. The total project cost was \$91,037. Match funds were provided by DNRC's Forestry Division.

**Montana Department of Natural Resources and Conservation  
Pilot Urban Forestry Project  
RRD-91-5543**

A \$60,000 grant was authorized by the legislature in 1989. A grant agreement was executed in August 1991; the project was completed in June 1996. A total of \$60,000 was disbursed. Funds were used to assist communities in the seven-county Headwaters Resource, Conservation, and Development area to develop urban forestry programs. In the 10 communities that participated in the program, 2,040 new street and park trees were planted for a total cost of \$91,431.

**Montana State University, Montana Water Course  
Public Education in Water Management Project  
RRD-92-5552**

A \$100,000 grant was authorized by the legislature in 1991. A grant agreement was executed in May 1992; the project was completed in June 1996. A total of \$99,924 was disbursed, and the total project cost was \$255,896. Funds were used to provide Montana citizens with timely information on the management and use of water resources. A variety of teaching methods were used to provide the public with unbiased facts behind complex water management policies and water use issues. Special topic conferences were conducted on the subjects of water rights, watersheds, and streamflow management. Four radio and television broadcasts were developed to promote water conservation, and a variety of written materials were created to promote water education.

**Montana State Library  
Drought Monitoring System Project  
WDG-92-5097**

A \$58,364 grant was authorized by the legislature in 1991. A grant agreement was executed in October 1991; the project was completed in June 1995. A total of \$53,811 was disbursed for the project. Funds were provided to improve drought monitoring in Montana and to develop a new Montana Drought Plan. The Drought Monitoring System began its third year of operation February 15, 1994. It has been a great success. Prior to the project, there was no mapping and electronic distribution of drought information in Montana. Response to the system from the Drought Advisory Committee has been very positive and the map products have proven to be useful tools. The Montana Climate Center on the MSU campus served as a clearinghouse for information developed through this project. Unfortunately, Climate Center operations were suspended in October 1995. The Natural Resource Information System (NRIS) has applied for funding from this program to continue disseminating the information developed through this project.

**Richland County  
Lone Tree Dam Evaluation And Design  
RRG-94-1007**

A \$60,300 grant was authorized by the legislature in 1993. A grant agreement was executed in November 1993; the project was completed in March 1996. A total of \$51,530 was disbursed for the project, and the total project cost was \$62,257. Funds were used to evaluate the options available to bring the Lone Tree dams into compliance with the Dam Safety Act. As a result of the engineering study and financial feasibility analysis, it was determined that complete rehabilitation was too costly. The dam owners decided to breach the lower dam. The operating level was reduced in the upper dam to less than 50 acre-feet, which is the threshold level that triggers the requirements of the Dam Safety Act. In addition to the engineering and feasibility analysis, an emergency action plan was developed for the town of Sidney in the event of major flood events in the future.

**Roosevelt County Conservation District  
Recreational Enhancement of Missouri River  
93RO000**

A grant submitted by the Roosevelt County Conservation District was authorized by the legislature in 1993. No grant agreement was ever issued; no funds were disbursed for the project. Funds were requested to develop recreational access along the Missouri River. At the time of authorization, the project was not adequately developed to permit full funding. The legislature authorized funds to complete only the planning phase of the project. The project sponsor was not able to secure adequate funding to complete the project.

**Ruby Water Company  
Dam Feasibility Study Project**

A \$14,708 grant was authorized by the legislature in 1991. No grant agreement has been issued; funds have not yet been disbursed for the project. Funds were requested to study the feasibility of constructing a moderate-size irrigation dam. Because the applicant was a private entity, only 25 percent of the study cost (up to \$14,708) was authorized. The project sponsor was not able to secure adequate funding to complete the project.

**Ryegate, Town of  
Ryegate Water System Improvement Project  
93RY000**

A \$50,000 grant was authorized by the legislature in 1993. No grant agreement has been issued; funds have not yet been disbursed for the project.

**Stockett Water Users Association  
Wastewater Collection and Treatment System  
WDG-94-5110**

A \$50,000 grant was authorized by the legislature in 1991. A grant agreement was executed in February 1994. The project, completed in 1995, consisted of the construction of a wastewater collection and treatment system.

**Sun River Water Users Association  
Sun River Water System Study Project  
WDG-93-5106**

A \$7,500 grant was authorized by the legislature in 1991. The project was completed in February 1994; all of the funds authorized were spent. Funds were used to conduct a study to collect additional information regarding the quality and quantity of the springs and/or shallow groundwater source proposed for as a community water use. The wastewater and well problems in Sun River, as well as the quality problems with the Sun River Valley School water supply, were also evaluated.

**Three Forks, Town of  
Water System Improvements Project  
RRD-93-5561**

A \$100,000 grant was authorized by the legislature in 1991. A grant agreement was executed in June, 1993. The project was completed in 1995, and consisted of the drilling and development of two new wells with associated pumping, controls,

and piping. Replacement upgrades to the existing distribution system, including new fire hydrants, were also included in the scope of work.

**Winnett, Town of  
Wastewater System Improvements Project  
RRG-94-1015**

A \$50,000 grant was authorized by the legislature in 1993. A grant agreement was executed in April 1994. The project was completed in 1995. Included in the scope of work were replacement upgrades to the existing wastewater collection system, a new lift station, a new crossing at McDonald Creek, and miscellaneous improvements at the existing aerated lagoon.

**Yellowstone County Conservation District  
Streambank Reinforcement Project  
RRD-92-5548**

A \$100,000 grant was authorized by the legislature in 1991. The project was completed in August 1993; all of the funds authorized were spent. The project encompassed the stabilization of 4,000 feet of highly unstable and eroding stream banks on Canyon Creek near Billings. Instead of using boulder rip-rap, rock jetties, and tires to secure the banks, the demonstration restoration efforts incorporated soft engineering practices that utilized vegetation, organic erosion fabrics, stream bed manipulations and, in some reaches, intensive earth work to stabilize the eroding streambanks.

**Yellowstone County  
Shepherd Rural Water System  
93YS000**

A \$75,000 grant was authorized by the legislature in 1993. A district was not formed to obtain additional financing for the project and the grant has been canceled.

## **Active Grant Projects**

**Bozeman, City of  
Separator Waste Collection Facility  
RRG-96-1046**

A \$50,000 grant was authorized by the legislature in 1995. A grant agreement was executed in June, 1996. The project is currently being designed and is scheduled for 1997 construction. The project consists of the construction of covered treatment beds designed for the treatment of non-hazardous waste material from industrial sumps, traps, and collectors. An example is the material collected in drain sumps at car washing facilities. Following drying and treatment, the materials will be permanently disposed of at the municipal landfill.

**Butte-Silver Bow Local Government  
Big Hole River Water Transmission Line Improvements Project  
RRG-96-1028**

The legislature authorized a \$100,000 grant in 1995. A grant agreement was executed in December, 1995. The project

consists of the replacement of 2,000 feet of leaking water transmission main. The project is currently being designed by Butte-Silver Bow staff; plans have not been submitted for review. No disbursements have been made.

**Butte-Silver Bow Local Government  
Blacktail Creek Restoration Project  
RRD-93-5558**

A \$100,000 grant was authorized by the legislature in 1991. A grant agreement has been issued; \$13,443.34 has been disbursed for the project. The project will restore a 6,000-foot section of Blacktail Creek on the stream reach from Harrison. This project has grown dramatically from the original proposal as authorized by the legislature in 1991. Butte-Silver Bow has managed to secure an additional \$773,390 in project funding from a variety of state and federal agencies. Project plans were completed this fall and construction is scheduled to begin in the spring of 1997.

**Butte-Silver Bow Local Government  
Municipal Compost Pilot Study and Report  
RRG-95-1020**

A \$50,000 grant was authorized by the legislature in 1993. A grant agreement was executed in 1994; to date, \$31,429.03 has been disbursed. The project consists of a pilot study and demonstration of the potential technical and economic feasibility of mixing yard waste with sludge by-products from the municipal wastewater treatment plant to produce compost. The city and county would then use the compost for developing and maintaining parks, reclaiming abandoned industrial sites, or for other landscape projects.

**Chinook Division Irrigation District Joint Board of Control  
Milk River Water Supply Project  
WDG-93-5104**

A \$100,000 grant was authorized by the legislature in 1991. A grant agreement was executed in June, 1993. No funds have yet been disbursed for the project. The 172 farms within the Chinook Division District comprise just over 38,000 irrigated acres of the 92,000-acre irrigation project. The project facilities are operated by USBR. Most of the facilities for the five irrigation districts that make up the Chinook Division were constructed before 1911. The Division Irrigation Association intends to repair and replace some existing structures and add new structures as part of a basin-wide program to reduce chronic water shortages that have plagued the Milk River drainage.

**Chinook Division Irrigation District Joint Board of Control  
Repair of Lohman Dam  
RRG-95-1021**

A \$36,173 grant was authorized by the legislature in 1993. A grant agreement was executed in December 1994; funds have not yet been disbursed for the project. Funds will be used to rehabilitate Lohman Dam on the Milk River to ensure the dam's future reliability and to prevent excessive sand and silt from being diverted into the Fort Belknap Canal during irrigation. Project start up has been delayed due to problems in obtaining an acceptable contractor bid and with pouring concrete in the winter months. Detailed design specifications and cost estimates are still pending. A grant agreement extension until October 31, 1997, has been requested.

**Chouteau And Fergus Counties**  
**Missouri River Streambank Stabilization Project at PN Bridge**  
**RRG-97-1048**

A \$50,000 grant was authorized by the legislature in 1995. A grant agreement was executed in August, 1996. The project consists of furnishing and placing riprap along 300 feet of eroding Missouri River streambank in the vicinity of the PN Bridge. Local contributions, design and inspection by NRCS, and riprap material donations by the Bureau of Land Management are included in the \$72,816.00 project budget. Construction is in progress. No disbursements have been requested or made to date.

**Conrad, Town of**  
**Water System Improvements Project**  
**RRG-96-1029**

A \$50,000 grant was authorized by the legislature in 1995. A grant agreement was executed in August 1995. The project consists of the construction of a new intake and pumping facility at Lake Francis East Dam, the source of water for Conrad's municipal system. The project is substantially complete, but final reporting documents have not been submitted to date. \$45,000.00 has been disbursed.

**Dodson Irrigation District**  
**Improving Water Use Efficiency**  
**RRG-95-1023**

A \$31,569 grant was authorized by the legislature in 1993. A grant agreement was executed in April 1995. No funds have been disbursed for the project. Funds will be used to replace 3,900 feet of old canal with 1400 feet of plastic pipe to eliminate seepage from the canal to conserve water. The irrigation district is in the process of finalizing engineering plans for the project to prepare for bids.

**Eastern Sanders Conservation District**  
**Little Bitterroot Recharge Enhancement Project**  
**RRD-92-5556**

A \$86,300 grant was authorized by the legislature in 1987 and re-authorized in 1991. A grant agreement was executed in June 1992; \$77,257.05 has been disbursed for the project. The project involves re-evaluating and updating the data and hydrogeologic interpretations of the Lonepine aquifer and associated aquifers since the hydrogeology was characterized in the early 1980s. The project will provide information to be used to determine whether artificial re-charge of the aquifer is feasible and how groundwater can be conserved to maintain aquifer levels. All of the field work is completed and the study results are currently undergoing internal review.

**Fairview, Town of**  
**Water System Improvements Project**  
**RRG-96-1027**

A \$100,000 grant was authorized by the legislature in 1995. A grant agreement was executed in August 1995. The project, consisting of improvements to the municipal water storage and distribution system, is currently in the design stage and is scheduled to bid in late 1996 or 1997. 1997 construction is planned. No disbursements have been requested or made.



**Fallon County**  
**Lower Baker Lake Spillway Structure Replacement**  
**RRD-96-1039**

A \$31,743 grant was authorized by the legislature in 1995. A grant agreement was executed in October 1995. Work entails replacement of the Lower Baker Lake spillway structure and cleaning and placement of stabilizing rock in the - upstream channel of the spillway. A contractor has been selected and work at the site has begun. A grant fund disbursement of \$21,411.75 has been made. A balance of \$10,331.25 in grant funds remains. Project completion is expected by December 1, 1996.

**Flathead Basin Commission**  
**Flathead Lake Watershed Education Plan**  
**RRG-96-1043**

A \$100,000 grant was authorized by the legislature in 1995. A grant agreement was executed in January 1996. No funds have been disbursed for the project. The purpose of the Flathead Lake and Watershed Education Plan is to facilitate and encourage, through public involvement, the integration of science, management, and policy to enhance water management and to protect the water quality within Flathead Lake and the watershed.

**Granite Conservation District**  
**Upper Clark Fork River Basin Water Management Plan**  
**RRG-96-1040**

A \$64,740 grant was authorized by the legislature in 1995. A grant agreement was executed in November 1995. \$7,171 has been disbursed for the project. The purpose of this project is to establish and operate the successor to the Upper Clark Fork River Basin Steering Committee and its watershed committees, work on specific water quality and quantity fishery improvement projects, carry out education and outreach programs for basin water rights holders and persons interested in water issues, identify short and long-term water management issues/problems, and formulate alternatives for resolution of identified issues/problems.

**Huntley Water and Sewer District**  
**Water System Improvements Project**  
**RRG-97-1049**

A \$100,000 grant was authorized by the legislature in 1993. A grant agreement was executed in September 1996. Drawings and specifications were submitted to DNRC and DEQ for review in October 1996. Construction is scheduled for late 1996 or 1997. No disbursements have been made.

**Hysham, Town of**  
**Wastewater System Improvements Project**  
**RRG-96-1047**

A \$50,000 grant was authorized by the legislature in 1995. A grant agreement was executed in June 1996. The project consists of improvements to the town's existing wastewater collection and treatment system. The project is currently in the design phase and is planned for spring 1997 construction. No disbursements have been requested or made to date.

**Lewis And Clark County Water Quality Protection District  
Helena Area Bedrock Aquifer Assessment  
RRG-96-1033**

A \$100,000 grant was authorized by the legislature in 1995. A grant agreement was executed in August 1995. A total of \$31,865 has been disbursed for the project. Funds are being used to assess the bedrock aquifer systems that recharge 45 percent of the Helena Valley alluvial aquifer. This aquifer provides the only source of water for residents living in the bedrock areas.

**Lewistown, City of  
Water System Improvements Project  
RRG-96-1045**

A \$100,000 grant was authorized by the legislature in 1995. A grant agreement was executed in March 1996. The project consists of improvements at the systems source at the head of Big Spring Creek, a new post-tensioned concrete storage reservoir, a new transmission main, and improvements to the distribution system. The project is in the final cleanup stages of completion; \$90,000.00 has been disbursed.

**Libby Area Conservancy District  
Libby, Granite, and Cherry Creeks Flood Control Plan  
RRG-96-1038**

A \$35,000 grant was authorized by the legislature in 1995. A grant agreement was executed in September 1995. A total of \$19,423 has been disbursed for the project. Funds are being used to investigate flood damage causes and develop a strategic long-range action plan to: improve water quality by reducing bedload movement and stabilized streambanks; reduce the flood risk to lives and property; improve fish and wildlife habitat; and begin the process to obtain funding to implement the long-range plan recommendations.

**Liberty County Conservation District  
Sweetgrass Hills Groundwater Study Project  
RRD-93-5560**

A \$100,000 grant was authorized by the legislature in 1991. A grant agreement was executed in July 1993. A total of \$90,757 has been disbursed for the project. Funds were provided to conduct a baseline assessment of groundwater resources in an eight-township area south of East Butte in the Sweetgrass Hills of north-central Liberty County. Data collection has been completed and a report on the project findings was presented at the annual meeting of the Montana Chapter of the American Water Resource Association. The final study report is nearing completion. A watershed group has formed to address the water quality problems as a result of the work performed under this grant.

**Little Beaver Conservation District  
Water Reservations Development and Implementation  
RRG-94-1003**

A \$47,318 grant was authorized by the legislature in 1993. A grant agreement was executed in August 1993. A total of \$46,725.33 has been disbursed for the project. Funds were provided to pay for technical and legal assistance to 11 conservation districts during the Little and Lower Missouri River Basin Water Reservation proceedings. All 11 conservation districts were granted water reservations. The project sponsor is in the process of compiling a final report for submission to DNRC.

**Madison Conservation District  
Willow Creek Demonstration Watershed  
RRG-97-1051**

A \$25,000 grant was authorized by the legislature in 1995. A grant agreement was executed in October of 1996. No funds have been disbursed for the project. Project funds will be used to install a Sno-Tel site in the Willow Creek drainage of the Tobacco Root Mountains. The district has joined with the U.S. Forest Service, Indiana State University, and NRCS in developing a demonstration watershed management project that will provide real-time water supply data to assist water users in irrigation management. Remaining project funds will be used for project administration and operation and maintenance of the Sno-Tel site.

**Malta Irrigation District  
Improving Water Efficiency on Dodson South Canal  
RRG-94-1004**

A \$50,000 grant was authorized by the legislature in 1993. A grant agreement was executed in September, 1993. A total of \$30,876.99 has been disbursed. Funds were provided to replace eight check structures located in the Dodson South Canal. The new structures (10-foot wide openings will replace 5-foot openings) will have automated gates that can better handle spring ice jams, which will enable more water to be captured earlier in the spring for irrigation and improved delivery.

**Manhattan, Town of  
Water System Improvements Project  
RRG-96-1025**

A \$50,000 grant was authorized by the legislature in 1995. In July 1995 a grant agreement was executed for \$33,000 based on a reduced scope of work for the project. The project consists of the installation of a new groundwater collector system, transmission main, and chlorination vault. The collector was constructed in December 1995 and has undergone required testing since construction. Construction of the transmission main and vault are scheduled for late 1996. No disbursements have been requested or made.

**Missoula County  
Public and Private Partnerships For Protecting Water Resources Through the Conservation of Riparian Areas:  
a Model Project  
RRG-96-1041**

A \$100,000 grant was authorized by the legislature in 1995. A grant agreement was executed in January 1996. A total of \$9,052 has been disbursed for the project. Funds are being used to design, implement, and evaluate a model for establishing public-private partnerships aimed at protecting the area's water resources and wildlife habitats by conserving critical private riparian land. Specifically, funds are used for land appraisals, baseline data, and title searches and fees in order to place critical riparian lands in a land trust or conservation easement.

**Montana Department of Fish, Wildlife and Parks  
Assessment of Aquatic Resources in the Blackfoot River Basin  
RRG-96-1036**

A \$100,000 grant was authorized by the legislature in 1995. A grant agreement was executed in September 1995. A total of \$39,852 has been disbursed for the project. Funds for this project will be used to conduct a reconnaissance assessment

of the aquatic resources of the Blackfoot River basin, and design, and if possible, operate a monitoring network for long-term assessment of the aquatic resources of the basin. This will include the establishment of a centralized and comprehensive computer data base for water resources information in the basin.

**Montana Department of Natural Resources and Conservation  
Beaverhead Groundwater Study Project  
RRD-92-5551**

A \$100,000 grant was authorized by the legislature in 1991. An agreement was executed in April 1992. A total of \$99,403.91 has been disbursed for the project. Funds were provided to study groundwater yields and interaction with surface water in Beaverhead County. The information will allow DNRC to estimate the volume of water in the aquifer and the rates and general locations of aquifer recharge and discharge. All field activities have been completed and data analysis is in the final phase. A final study report will be written and edited during the winter of 1996-1997 and submitted to the Montana Bureau of Mines and Geology in spring.

**Montana Department of Natural Resources and Conservation  
Flathead Valley Cooperative Groundwater Study  
RRG-94-1016**

A \$100,000 grant was authorized by the legislature in 1993. A grant agreement was executed in June 1994. A total of \$89,736.64 has been disbursed for the project. Funds are being used to develop a detailed technical framework for responsible groundwater management in the Kalispell area. DNRC continues to measure groundwater levels in 8 monitoring and 35 domestic wells. The project was extended to permit data collection over two concurrent water years. Data interpretation and evaluation will continue during the winter months. The final project report will be completed in the spring of 1997.

**Montana Department of Natural Resource and Conservation  
Flint Creek Return Flow Study  
RRG-96-1032**

A \$100,000 grant was authorized by the legislature in 1995. A grant agreement was executed in August 1995. A total of \$42,634 has been disbursed for the project. The primary goal of this study is to collect both surface and groundwater data needed for the Flint Creek water users to evaluate the management of water within their basin. Further, results from this study will equip Flint Creek ranchers with data needed to address future concerns dealing with fisheries, hydropower, and residential water supply.

**Montana Department of Natural Resources and Conservation  
Fort Peck Rural County Water District  
Regional Water System Federal Funding Procurement  
RRG-96-1026**

A \$30,000 grant was authorized by the legislature in 1995. A grant agreement was executed in July, 1995. To date, \$18,537.46 has been disbursed. DNRC grant funds are being used to compensate the Fort Peck Rural County Water District for expenses it incurs in procuring federal funding for a regional water system. The district's efforts have met with success in that Congress has authorized the expenditure of \$5.8 million in federal money for the design and construction of the project.

**Montana Department of Natural Resources and Conservation  
Rocky Boys/north Central Montana Regional Water Supply System  
Off-reservation Needs Assessment and Federal Funding Procurement  
95RB000**

In 1995, the legislature authorized the expenditure of \$30,000 in DNRC grant funds to offset costs associated with the development of a large regional water system in north-central Montana. The project, now known as the Rocky Boys /North Central Montana Regional Water Supply System, has since received \$300,000 in federal funding for the study and preparation of a feasibility report. The study is currently in progress, and the report is scheduled for completion by June 1997. An engineering services contract in the amount of \$10,000 was executed in 1995 for the purpose of gathering and processing off-reservation needs assessment data to be used in the preparation of the feasibility report. To date, \$8,865.12 in DNRC grant funding has been disbursed under that agreement.

**Montana Department of Natural Resources and Conservation  
Study of the Characteristics of Extreme Precipitation Events in Montana  
RRG-94-1009**

A \$100,000 grant was authorized by the legislature in 1993. A grant agreement was executed in October 1993. To date, \$77,030 has been disbursed for the project. USGS has spent \$86,530 in matching funds for a total of \$163,560. Funds are being used to develop frequency-based criteria for computing inflow design floods for Montana dams. As a result of the study, DNRC anticipates that design standards to meet Dam Safety Act requirements may be reduced. Most of the field data has been collected and USGS is in the process of completing the regional analysis report and the storm data analysis.

**Montana Tech of the University of Montana, Montana Bureau of Mines And Geology - Groundwater Protection  
And Education in Montana Schools  
RRG-96-1042**

A \$84,560 grant was authorized by the legislature in 1995. A grant agreement was executed in December 1995. To date, \$22,248 has been disbursed for the project. Funds are being used to develop wellhead protection plans for eight rural schools in Montana. These schools derive their water supply from groundwater. These plans will be certified and meet requirements of the Safe Drinking Water Act.

**Montana Tech of the University of Montana  
Hydrologic Evaluation for Florence and Seeley Lake  
RRG-96-1037**

A \$95,422 grant was authorized by the legislature in 1995. A grant agreement was executed in October 1995. The project consists of a hydrologic study to determine the effects that rapid development is having on groundwater in the communities of Florence and Seeley Lake. The study is currently in progress; \$4,621.98 in grant funds have been disbursed.

**Nashua, Town of  
Water System Improvements Project  
RRG-95-1024**

A \$50,000 grant was authorized by the legislature in 1993. A grant agreement was executed in April 1995. The project

consists of water system improvements including a new 250,000-gallon storage reservoir, a new well, distribution system upgrades, and new pump and chlorination facilities. To date, \$17,742.53 in grant funds have been disbursed.

**Phillips Conservation District  
Moisture Monitoring Project  
RRG-95-1022**

A \$53,382 grant was authorized by the legislature in 1991. A grant agreement was executed in October 1994. To date, \$24,388.24 has been disbursed for the project. This project is using water and soil analyses to provide producers with accurate information concerning the capabilities and limitations of their climatic region, soil types, and water movement and availability. This project has been successful in identifying areas with high salt content in the soil, and has enabled water users to better manage water use in crop production.

**Ravalli County, Board of Commissioners  
Ravalli County Groundwater Vulnerability Assessment  
RRG-94-1018**

A \$70,762 grant was authorized by the legislature in 1993. A grant agreement was executed in July 1994. To date, \$62,792.59 has been disbursed for the project. Funds have been used to document the hydrogeologic history and to map areas of relative groundwater pollution on non-federal lands in Ravalli County. Resulting maps will be used to plan and make decisions concerning land use and water-related development in the county. The project was extended to permit the collection of one complete year of data from the Hamilton Heights focus area. The final study report will be completed in the spring of 1997.

**Ruby Valley Conservation District  
Upper Ruby Water Developments and Riparian Area Improvements  
RRG-94-1005**

A \$100,000 grant was authorized by the legislature in 1993. A grant agreement was executed in September 1993. To date, \$60,599.59 has been disbursed for the project. Funds are being used to make range improvements on the Upper Ruby Cattle and Horse Allotment. These improvements are designed to decrease livestock use on riparian areas while simultaneously increasing the use of uplands to improve riparian conditions. Twenty-nine offstream watering sites and 14.9 miles of fence will be installed. In addition, the permittees will provide three range riders to ensure that livestock are properly distributed. All of the water developments are installed. The project sponsor had hoped to complete the fencing this summer, but due to the late snowpack and early fall snows, the construction season was substantially shorter than anticipated.

**Sheridan County Conservation District - Administration of Water Reservation, Hydrologic System  
Monitoring Program  
RRD-89-5529-2**

Funding of \$8952.31 was awarded to the project sponsor from Water Reservations Development Funds in 1995. A grant agreement was executed in February 1996. To date, \$441.62 of grant funds have been disbursed. The funds are being used to administer the water reservation granted to the district in December, 1994. This includes implementation, oversight, and administration of a hydrologic monitoring program of the groundwater source associated with the water reservation.

**Stillwater Conservation District  
Evaluation of Plastic Lining Project  
RRD-93-5557**

A \$56,848 grant was authorized by the legislature in 1991. A grant agreement was executed in May 1993. To date, \$51,163.20 has been disbursed for the project. Funds are being used to line a 4,000-foot section of the Cove Ditch canal using a less costly, more effective and durable alternative to conventional ditch liners. The material is the same material tested under an earlier program grant. Installation of the lining material at this site provides another opportunity to evaluate its use and effectiveness. Testing of the liner is continuing.

**Sun River Water And Sewer District  
Water System Engineering Study and Report (Second Study)  
RRG-96-1030**

A \$50,000 grant was authorized by the legislature in 1995. Grant funds were authorized for both an engineering study and construction. The project is for the development of municipal water supply, storage, and distribution system. The engineering study has failed to identify a reliable source of quality groundwater, and surface water sources are being investigated. The feasibility of developing a regional system is also being considered. To date, \$22,297.40 has been disbursed.

**Thompson Falls, City of  
Water System Engineering Study and Report  
RRG-96-1034**

A \$51,820 grant was authorized by the legislature in 1995. A grant agreement was executed in September 1995. To date, \$34,434.00 has been disbursed. The project consists of an engineering study and the preparation of a water master plan. Areas of special concern are supply deficiencies and concerns, distribution system deficiencies including system losses, and boost pump and storage requirements.

**Yellowstone County  
Yellowstone River Project  
RRG-94-1013**

A \$50,000 grant was authorized by the legislature in 1993. A grant agreement was executed in February 1994. A total of \$44,102.19 has been disbursed for the project. Funds were used to construct a pedestrian footpath under South Billings Boulevard. Additionally, 800 feet of trail was constructed and critical streambank stabilization work on the South Billings Boulevard Bridge was completed. This project links two major park complexes that were divided by the highway, which presented a hazard to pedestrians. Additionally, grant funds will be used for signage along the pedestrian footpath. The project will be finished this fall.

## **Authorized Projects Not Yet Executed**

**Department of Natural Resources and Conservation  
Deadman's Basin Irrigation System Improvements Project  
95DB000**

A \$47,919 grant was authorized by the legislature in 1995. No grant agreement has been executed. The project consists

of improvements to the Barber Canal designed to increase its flow capacity, thereby reducing flows in the Careless Creek Canal and decreasing sediment transport in Careless Creek to the lower Musselshell River. The project is currently in the design phase with construction scheduled for 1997.

**East Glacier Water and Sewer District  
Midvale Diversion  
93EG000**

A \$25,905 grant was authorized by the legislature in 1993. No grant agreement has been executed. The scope of work consists of constructing a diversion structure at the water supply reservoir. Its purpose will be to allow diversion of the community water supply during cleaning operations in the reservoir. The project is being delayed by disputes between the district and the Blackfeet Tribe.

**Fort Shaw Irrigation District  
Rehabilitation of Headworks & "A" System Project  
91FS000**

A \$50,000 grant was authorized by the legislature in 1991 and again reauthorized in 1995. No grant agreement has been issued; funds have not yet been disbursed for the project. The project was proposed to construct a jetty in the Sun River and to install new gates in the irrigation water diversion structures. USBR no longer has a program to provide the funding needed, and as a result Fort Shaw Irrigation District had inadequate funds to complete the project proposed. In 1997, the district will seek legislative authorization to transfer funding to the most recent grant application proposed this biennium.

**Fort Shaw Irrigation District  
Rehabilitation and Betterment Study Project  
91FS000**

A \$50,000 grant was authorized by the legislature in 1991 and again reauthorized in 1995. No grant agreement has been issued; funds have not yet been disbursed for the project. The project was proposed to conduct a rehabilitation and betterment study to meet requirements to qualify for a USBR rehabilitation and betterment loan. Funds under the USBR program are no longer available. In 1997, the district will seek legislative authorization to use this funding in conjunction with a grant application proposed this biennium.

**Jackson Water and Sewer District  
Geothermal Development Feasibility Study  
95JW000**

A \$25,000 grant was authorized in 1995. No grant agreement has been issued; funds have not yet been disbursed for the project. Funds were requested to investigate the geothermal heat potential of the hot spring located in town. The district has yet to engage a consultant to conduct the study.

**Lincoln Lewis and Clark County Sewer District  
Lincoln Wastewater System Improvements Project**

In 1995, the legislature authorized a \$15,000 DNRC grant to the Lincoln Lewis and Clark Sewer District for miscellaneous improvements to the municipal wastewater collection and treatment system. The scope of work was better defined in a facility plan prepared in 1995, and additional funding for the improvements is currently being applied for. No grant agreement has been executed.



Figure 12

# Funding Information for Renewable Resource Grant and Loan Projects Authorized in 1991, 1993, and 1995

Project Sponsor--Project Title	Appropriated Amount	Contracted Amount	Amount Disbursed
<b>1995 Legislature - Renewable Resource Grant and Loan Program</b>			
<b>Fallon County</b>	\$31,743	\$31,743	
--Lower Baker Spillway Construction and Cleaning			
<b>Conrad, City Of</b>	50,000	50,000	\$45,000
--Reconstruct Outlet Conduit on Lake Francis East Dam			
<b>Lewistown, City of</b>	100,000	100,000	90,000
--Water System Improvements			
<b>DNRC Water Resources Division</b>	47,919		
--Deadman's Basin Water Quality Improvement Project			
<b>Mt Tech of the University of Montana</b>	84,560	84,560	22,248
--Groundwater Protection and Education, Rural Schools			
<b>Lewis and Clark County</b>	100,000	100,000	31,865
--Helena Area Bedrock Aquifer Assessment			
<b>Missoula County</b>	100,000	100,000	9,052
--Conservation of Riparian Areas Model Project			
<b>Thompson Falls, City of</b>	51,820	51,820	34,434
--Water Engineering Study			
<b>Bozeman, City of</b>	50,000	50,000	
--Separator Waste Collection Facility			
<b>Governor's Office-Flathead Basin Commission</b>	100,000	100,000	
--Flathead Lake Watershed Management Plan			
<b>DNRC Water Resources Division</b>	100,000	100,000	42,634
--Flint Creek Return Flow Study			
<b>Butte-Silver Bow Government</b>	100,000	100,000	
--Big Hole River Water Transmission Line Replacement			

Project Sponsor--Project Title	Appropriated Amount	Contracted Amount	Amount Disbursed
<b>Montana Tech of the University of Montana</b>	\$95,422	\$95,422	\$4,622
--Hydrologic Evaluation, Florence and Seeley Lake			
<b>Chouteau and Fergus Counties</b>	50,000	50,000	
--PN Bridge - Campground			
<b>Libby Area Conservancy District</b>	35,000	35,000	19,423
--Libby-Granite-Cherry Creek Flood Control Plan			
<b>Department of Fish, Wildlife, and Parks</b>	100,000	100,000	39,852
--Assessment of Aquatic Resources in the Blackfoot Basin			
<b>Hysham, Town of</b>	50,000	50,000	
--Sewer System Improvements			
<b>Fairview, Town of</b>	100,000	100,000	
--Water System Improvements			
<b>Madison Conservation District</b>	25,000	25,000	
--Willow Creek Water Resource Management System			
<b>Manhattan, Town of</b>	50,000	33,000	
--Manhattan Water System			
<b>Granite Conservation District</b>	64,740	64,740	7,171
--Upper Clark Fork River Basin Water Management Plan			
<b>Jackson Water and Sewer District</b>	25,000		
--Geothermal Development Feasibility Study			
<b>Sun River Water Users Association</b>	50,000	50,000	22,257
--Sun River Water System			
<b>Lincoln Lewis and Clark Sewer District</b>	15,000		
--Lincoln Wastewater System Study and Upgrade			
<b>DNRC Water Resources Division</b>	30,000	30,000	14,354
--Fort Peck Rural Water District			
<b>DNRC, Resource Development Bureau</b>	30,000	30,000	8,925
--North Central Regional Pipeline			

Project Sponsor--Project Title	Appropriated Amount	Contracted Amount	Amount Disbursed
<b>Eureka (Emergency)</b>	\$34,285	\$34,285	\$33,214
--Emergency Dike Repair			
<b>Lakeside County Water District. (Emergency)</b>		90,000	90,000
--Upgrade and New Well Construction			
<b>Total</b>	\$1,760,489	\$1,655,570	\$425,051
<b>1993 Legislature - Renewable Resource Grant and Loan Program</b>			
<b>Malta Irrigation District</b>	\$50,000	\$50,000	\$30,877
--Water Use Efficiency Improvements			
<b>Richland County</b>	60,300	60,300	51,531
--Dam Evaluation and Design			
<b>DNRC Water Resources Division</b>	100,000	100,000	77,030
--Characteristics of Extreme Precipitation			
<b>Yellowstone County</b>	50,000	50,000	44,102
--Yellowstone River Project			
<b>Butte-Silver Bow Government</b>	50,000	50,000	31,429
--Municipal Compost Production			
<b>DNRC Forestry Division</b>	60,000	60,000	60,000
--Reforestation Projects on State Lands			
<b>Huntley Water &amp; Sewer District</b>	100,000		
--Water System Rehabilitation			
<b>Ruby Valley Conservation District</b>	100,000	100,000	60,600
--Upper Ruby Riparian Area Improvements			
<b>Winnett, Town of</b>	50,000	50,000	50,000
--Sewer Reconstruction and Rehabilitation			
<b>Fort Peck Rural Water District</b>	40,000	40,000	40,000
--Water Engineering Study			

Project Sponsor--Project Title	Appropriated Amount	Contracted Amount	Amount Disbursed
<b>East Glacier Water &amp; Sewer District</b>			
--Midvale Diversion Structure	\$25,905		
<b>Nashua, Town of</b>			
--Water Storage System Improvements	50,000	\$50,000	\$17,743
<b>Chinook Division Irrigation Association</b>			
--Water Measuring Devices	34,217	34,217	6,703
<b>Chinook Division Irrigation Association</b>			
--Repair of Lohman Dam	36,173	36,173	
<b>Custer County</b>			
--County Recycling Project	4,725	4,725	4,725
<b>Circle, Town of</b>			
--Water Quality Improvement Project	36,000	36,000	34,668
<b>Eastern Sanders Conservation District</b>			
--Accelerate Soil Survey on Forest lands	99,000	99,000	99,000
<b>Glasgow Irrigation District</b>			
--Installation Headgate Measuring Devices	50,000	50,000	50,000
<b>DNRC Water Resources Division</b>			
--Flathead Valley Cooperative Groundwater Study	100,000	100,000	89,737
<b>Little Beaver Conservation District</b>			
--Water Reservations Implementation	47,318	47,318	46,725
<b>Ravalli County</b>			
--Groundwater Vulnerability Assessment	70,672	70,672	62,793
<b>Dodson Irrigation District</b>			
--Water Use Efficiency Improvements	31,569	31,569	
<b>Flathead Joint Board of Control</b>			
--Fish Friendly Irrigation	44,500	44,500	
<b>Missoula County</b>			
Linda Vista Sewer Inceptor Project	100,000	100,000	100,000
<b>Thompson Falls (Emergency Grant)</b>			
--Sewer Main Repairs		9,937	9,475

<b>Project Sponsor--Project Title</b>	<b>Appropriated Amount</b>	<b>Contracted Amount</b>	<b>Amount Disbursed</b>
<b>Broadview (Emergency Grant)</b>		\$6,000	\$5,597
--Rehabilitation of Well and Hauling of Water			
<b>Reserve Water &amp; Sewer District (Emergency Grant)</b>	\$30,700	30,700	
--Upgrade Sewer System			
<b>Total</b>	<b>\$1,390,379</b>	<b>\$1,311,111</b>	<b>\$1,003,434</b>
<b>1991 Legislature-Water Development Grants</b>			
<b>Chinook Irrigation District</b>	\$100,000	\$100,000	
--Milk River Water Supply			
<b>Lower Musselshell Conservation District</b>	72,539	72,539	\$72,315
--River Management Tools			
<b>Glasgow Irrigation District</b>	100,000	100,000	100,000
--Improving Water Use Efficiency			
<b>Montana State Library</b>	58,364	58,364	53,812
--Drought Monitoring System			
<b>Flathead Joint Board of Control</b>	92,000	92,000	91,000
--Flathead Irrigation Information System			
<b>Lewis &amp; Clark County Conservation District</b>	100,000	100,000	85,625
--Nilan Water Conservation Project			
<b>Stockett Water Users Association</b>	50,000	50,000	50,000
--Wastewater Collection & Treatment			
<b>Fort Shaw Irrigation District</b>	50,000		
--Rehabilitation Headworks & "A" System			
<b>Dutton, Town of</b>	91,319	66,319	66,319
--Water Storage Reservoir			
<b>Phillips Conservation District</b>	53,382	53,382	24,388
--Moisture Monitoring Project			

Project Sponsor--Project Title	Appropriated Amount	Contracted Amount	Amount Disbursed
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Sun River Water Users Association	\$7,500	\$7,500	\$7,500
--Sun River Water System			
Fairview (Emergency Grant)		32,800	32,800
--New Water Well Drilling Project			
Buffalo Rapids Irrigation District #2 (Emergency Grant)		54,000	54,000
--Replace Discharge Lines, Fallon Unit			
Sun River Valley School District 55F(Emergency Grant)		10,875	9,422
--Temporary Chlorination System & Bottled Water			
Lincoln Conservation District (Emergency Grant)		2,262	2,262
--Flood Control, Big Cherry Creek			
Broadview (Emergency Grant)		10,000	10,000
--Rehabilitation of Well & Hauling of Water			
Thompson Falls (Emergency Grant)		15,063	15,063
--Sewer Main Repairs			

Total	\$775,104	\$825,104	\$674,506
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1991 Legislature - Renewable Resource Development Grants

Yellowstone County Conservation District	\$100,000	\$100,000	\$100,000
--Streambank Reinforcement			
Jefferson Valley Conservation District	48,677	48,677	34,786
--Cereal-legume Crop Rotations			
Ekalaka	49,975	49,974	49,974
--Water Supply and Storage Project			
Montana State University, MWRC	100,000	100,000	99,924
--Public Education in Water Management			
Stillwater Conservation District	56,848	56,848	51,163
--Evaluation of Plastic Lining & Fabrication			

<b>Project Sponsor--Project Title</b>	<b>Appropriated Amount</b>	<b>Contracted Amount</b>	<b>Amount Disbursed</b>
<b>Broadwater Conservation District</b>			
--Irrigation Water Management Demonstration	\$100,000	\$100,000	\$100,000
<b>DNRC Water Management Division</b>			
--Beaverhead County Groundwater Study	100,000	100,000	99,404
<b>Polson</b>			
--Wellhead Protection Program	76,055	76,055	76,055
<b>Three Forks</b>			
--Water System Improvements	100,000	100,000	100,000
<b>Fort Shaw Irrigation District</b>			
--Rehabilitation & Betterment Study	50,000		
<b>Government of Butte-Silver Bow</b>			
--Blacktail Creek Restoration	100,000	100,000	13,443
<b>Liberty County Conservation District</b>			
--Sweetgrass Hills Groundwater Study	100,000	100,000	90,757
<b>Missoula County Conservation District</b>			
--Irrigation Diversion Alternatives	85,250	85,250	34,326
<b>Darby School District No. 9</b>			
--Darby School Park Project	25,300	25,300	25,300
<b>TOTAL</b>	<b>\$ 1,092,105</b>	<b>\$1,042,104</b>	<b>\$875,133</b>







1997

## Montana Department of Natural Resources and Conservation



1625 Eleventh Avenue  
P.O. Box 201601  
Helena, Montana 59620-1601  
(406) 444-6668

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